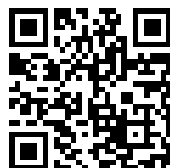

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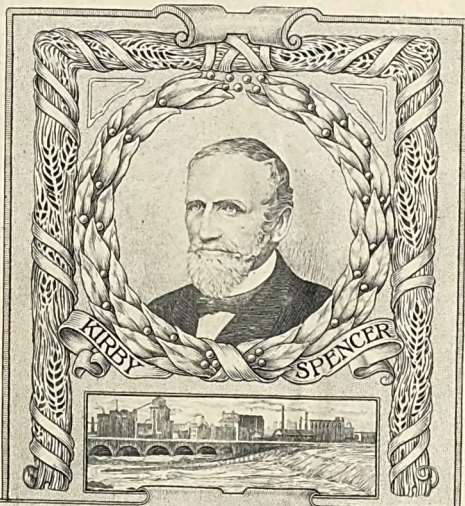


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With which is incorporated
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Edited by

Lieut.-Colonel CUTHBERT HEADLAM
D.S.O., O.B.E., T.D.

(late Bedfordshire Yeomanry and General Staff, B.E.F.)

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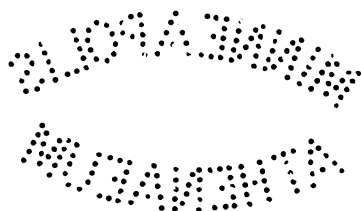
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THE ARMY QUARTERLY

VOL. XIX. No. 1.

OCTOBER, 1929

EDITORIAL

THE agreement reached at the Conference at The Hague a few weeks ago as a result of which the British evacuation of the Rhineland has already begun and the occupation of German territory by the French and Belgians is to be ended in June, 1930, is welcomed generally by the Press in this country as an outward and visible sign that a better state of feeling now exists among the Great Powers of Europe. It is earnestly to be hoped that this view is a correct one. There is, at any rate, a general consensus of opinion among European statesmen that the time has come for a liquidation of the problems of the war and that this cannot be successfully accomplished so long as the troops of the Allies remain in Germany. The long wrangle regarding Reparations appears at last to have been terminated by the acceptance of the modified Young Plan by the representatives of Great Britain, France, Germany, Italy, Belgium and Japan, and the definite agreement respecting the evacuation of the occupied area by the Allies should do much to satisfy German national sentiment. It would be far too optimistic to suppose that henceforward there will be no further friction or clashes of opinion between nations that were so comparatively recently at war with one another ; but Mr. Henderson, the Secretary of State for Foreign Affairs, was to some extent justified in expressing his belief that as a result of The Hague agreement " the path is opening before us for the constructive work of building up the common welfare and prosperity of our peoples upon the firm foundation of stable and enduring peace."

* * * * *

The Prime Minister's speech at Geneva may not unnaturally cause his countrymen and the peoples of the British Dominions some little anxiety. His declaration that the British Government was

prepared to sign the "Optional Clause" by which a State which is a member of the League of Nations may declare that it recognizes the jurisdiction of the Permanent Court to be compulsory, *ipso facto*, as between itself and any other member, and that he believed that he had the right to say that each of the Dominion Governments would instruct its representatives to sign it also during this Assembly of the League of Nations, appears to be in direct opposition to the decision made at the Imperial Conference in 1926. The question of the acceptance of this clause was then considered carefully by a special committee of the statesmen of the Empire presided over by Lord Balfour, and while they expressed themselves as unanimously in favour of "the widest possible extension of the method of arbitration," they reported that their "feeling was that it was at present premature to accept the obligations of the Article in question." This opinion was expressed only three years ago, and it is difficult to understand why the British Government should have decided to give its individual adherence to the "Optional Clause" before the question had again been fully considered at another Imperial Conference—more especially as in 1926 a general understanding was reached "that none of the Governments represented at the Imperial Conference would take any action in the direction of the acceptance of the compulsory jurisdiction of the Permanent Court without bringing up the matter for further discussion." Of course events at Geneva, which occur after the publication of these Notes, may disclose the fact that "further discussion" has taken place, but Mr. Ramsay MacDonald in his speech merely stated that he had "consulted the Dominions," and gave no definite assurance that they were in complete agreement with the British Government in this extremely important matter. Nor did the Prime Minister disclose in his speech the form in which his Government was prepared to accept the "Optional Clause." It may well be, therefore, that the intention is the acceptance of the Clause with reservations that may do something, as *The Times* pointed out, "to provide against the mischiefs to the Empire as a whole which unqualified submission would undoubtedly involve"—something that would limit the universal application of the principle of compulsory arbitration, a principle which, as Lord Balfour explained when he moved the rejection of the original "Compulsory Clause" at the Council of the League of Nations in 1920, has always been condemned by the legal authorities of all countries.

* * * * *

In his Geneva speech the Prime Minister assured his audience

that the British Government would do all it could to hasten the preparations for the Disarmament Conference. He went on to say that his Government "would urge the Commissions not to face their problems in the mentality of the possibility of war, because they will never go far if that is how they face their problems. It would urge them to face the problems on the assumption that the risk of war breaking out is far less than the hope of peace being permanently observed." With these words few Britons, least of all British soldiers, will disagree. They express the ardent desire of all of us. If a general reduction of armaments depended upon the wishes of the people of the British Empire, there would be no difficulty in its accomplishment to-morrow. But unfortunately it does not, and it is exceedingly doubtful whether Mr. Ramsay MacDonald's strikingly pacific peroration, cheered as it was to the echo by his hearers at Geneva, will really have much effect on the world at large. "The greatest test of enlightenment in these days," he stated, "is to show our willingness to reduce armaments, to banish from our mind all idea of security, and to throw ourselves with courage unflinchingly into this position, that we trust men and women and nations who come and make bargains with us. We will carry out our part, and they will carry out their part, and, in order that they may be done without break, we set up Courts to take the place of arms and conciliation to take the place of threats, and we agree that reason is the greatest creative power in the universe."

No one would wish to cavil at these pious aspirations, and yet what nation in the world at the present time can be expected to banish from its mind the idea of security? No observant Englishman, who travels on the Continent of Europe to-day, can fail to be struck by the attitude of mind that he encounters in every country that he visits. In his own country since the war the last thing which has occupied men's thoughts is the matter of national security. The British people feel that they have fought "the war to end war" and have concentrated all their energies upon the reduction of their own armaments and upon supporting the League of Nations in its ardent efforts to promote peaceful relations between the nations of the world. On the Continent there is not the same readiness to believe that the signing of pacts and the decisions of conferences will succeed in bringing about the millennium. National security is a matter of vital importance to all the new nations brought into existence by the Treaty of Versailles, and they would be bold statesmen who suggested to their countrymen that this could be assured by other than military means. The intense feeling of

nationality that has been created in the new nations of Europe by the putting into operation of President Wilson's doctrine of "self-determination" is scarcely appreciated in this country, and it will take many years of assured peace to promote among their inhabitants the sense of security without which anything like the ideal state of things visualized by Mr. Ramsay MacDonald can be brought about. This does not imply that the world's statesmen should not strive to their uttermost to promote the world's peace. They can do this best by trying to remove the causes of war which, as has often been pointed out in these Notes, involve many other things besides the existence of armed forces. It is useless to tell people to pay no regard to their national security when they are firmly convinced that their security is in danger. The object of statesmen and diplomatists should be to endeavour to break down the barriers to a better understanding between rival nations : to face facts and not to try and make people believe that the peace of the world will be secured for all time if only armaments can be sufficiently reduced. The Great War proved that small armies can speedily be enlarged into huge, national forces, and science can always mobilize the peaceful machinery of a nation into the machinery of war.

War is only possible, a Bishop remarked recently, when preaching in a camp of cadets, because "human beings had not yet stopped being beasts." This is a matter of opinion, and some of us may wonder whether we really were beasts when we took up arms for the defence of our countrymen, including probably the Bishop, and everything that we held dear. But if men are beasts to go to war, is there any reason to suppose that they are less beastly to-day than they were in 1914 ? So long as the causes of war exist, war is always possible, and those who are responsible for the defensive organization of their country must always bear this hard fact in mind, however anxious they may be to preserve the peace. This assertion is not entirely in accordance with what the Prime Minister said at Geneva and is not a popular doctrine in the England of to-day. Nevertheless, he would be a bold man who, if really pressed on the subject, denied it. "All human experience seems to demonstrate," as President Coolidge pointed out at Washington in a speech delivered on Armistice Day in 1928, "that a country which makes reasonable preparation for defence is less likely to be subject to a hostile attack and less likely to suffer a violation of its rights which might lead to war. . . . To be ready for defence is not to be guilty of aggression. We can have military preparation without assuming a military spirit. It is our duty to ourselves and to the cause of civilization,

to the preservation of domestic tranquillity, to our orderly and lawful relations with foreign peoples, to maintain an adequate army and navy."

These are wise and patriotic words which have been quoted before in the *Army Quarterly* and should commend themselves to all Britons.

* * * * *

It is surprising, although perhaps characteristic of the attitude of the public mind at the present time, that so comparatively little has been said or written of the draft Treaty with Egypt which, if it is accepted by the Egyptians, will make such a profound change in our position in Egypt. The Treaty may be the direct result of the Declaration of 1922 which ended the British Protectorate established in 1914, but it goes much further than most people anticipated and may lead to results that are either not contemplated or ignored by its authors. It is not for a Review of this character to consider the political consequences of the Treaty, far-reaching though they may be. From the military point of view it is satisfactory to find that the Government has conceded nothing in the matter of the defence of the Suez Canal and has maintained our position in the Sudan. It is hard, nevertheless, on the British soldier to be turned out of his comfortable surroundings in Cairo and Alexandria into the solitude of the desert, and it is not impossible to visualize a state of things arising which might make the position of our troops one of exceeding difficulty. Presumably, when considering the defence of the Canal, the Government and their military advisers have taken into account the vital importance of safeguarding the control of the sweet water canal which lies in Cairo and is now the only source of water supply to the Canal zone, or have assured themselves of the possibility of the Egyptian Government being able to develop a supply of water in that region.

* * * * *

The recent disturbances in Palestine have shown once again how essential it is that we should always be in a position to be able to send an adequate naval and military force to any part of the Empire at a moment's notice. In a country like Palestine, where we are responsible for the preservation of law and order between two mutually antagonistic peoples—and in this connection it is a little difficult to understand Mr. Ramsay MacDonald's statement at Geneva that there has been no racial conflict in Palestine—the position must always be one of great difficulty, and it would seem that, if further incidents of an unpleasant character are to be avoided, a small

but permanent British garrison is required. Even then no reasonable man would be prepared to guarantee that a fracas between Arabs and Jews involving loss of life might not arise ; but, if British troops were on the spot and acted with promptitude, no one would venture to make the violent statements made by Lord Melchett, Dr. Weizmann and the Chief Rabbi at the Albert Hall Meeting on the 1st of September. What grounds those gentlemen had for placing the responsibility for what has occurred in Palestine on the Palestine Administration and the British Government, it will be interesting to discover, and it is satisfactory to know that the Government, at the request of Sir John Chancellor, the High Commissioner for Palestine, is instituting an inquiry into the causes of the recent disorders.

* * * * *

The situation on the Russian-Chinese frontier in Manchuria still remains somewhat obscure, but, although considerable Russian and Chinese forces are in that area, there does not appear to be any reason to suppose that serious hostilities are contemplated by either side. On the western sector of the frontier in the region west of Manchoulie the Russians are reported to have three infantry divisions and a cavalry brigade, but there is no certainty that the divisions are up to mobilization strength. On the eastern sector they have one infantry division and a cavalry brigade near Pogradichnaya and they also have a division on the Amur front. The Chinese are reported to have five mixed brigades on the western, and five or six brigades on the eastern, frontier with a force of unknown strength in reserve. A mixed brigade consists approximately of 10,000 men with 12 guns, but it is unlikely that the brigades in Manchuria are up to strength. The only hostilities that have occurred up to the present time have consisted of forays on the part of the Russians, the object of which may have been to goad on the Chinese to a more active mode of warfare. Meanwhile, negotiations between the two countries are being carried on at Berlin through the agency of the German Minister in China.

The matter in dispute—the control of the Chinese Eastern Railway system—is one that cannot fail to be of interest to Japan. That country, while desirous of remaining on friendly terms both with the Russians and the Chinese, cannot afford to see the unrestricted growth of a Russian ascendancy in Manchuria, nor can it well permit any Chinese Government to act in the arbitrary manner that has caused the present imbroglio between the Soviet Government and the Mukden authorities. Japan has her own railways and other

enterprises in Southern Manchuria, and, if once the Chinese were allowed to treat duly constituted foreign officials in the arbitrary way in which they have treated the Russian officials on the Eastern Railway, the position of all foreign interests in Manchuria would be seriously affected. It seems clear that the present Japanese Government, as Mr. Kawakami points out in an interesting article in the September number of *The Nineteenth Century*,* while looking with favour upon China's efforts to secure parity with Russia in the management of the Manchurian railway, "will view with disfavour any drastic action China may take with a view to immediate repudiation of Russia's vested rights in North Manchuria, for such an action cannot but produce a most serious effect upon her own position in South Manchuria."

* * * * *

The two articles on the Territorial Army which appear in this number of the *Army Quarterly* will be read with interest by all soldiers. The increased importance to the nation of the Territorial Army now that it is the Second Line in our defence organization makes it desirable that the difficulties against which the Territorials have to contend in their training should be properly appreciated and that everything should be done by the authorities to make their task as easy as possible. Since the war there is no doubt that officers of the Regular Army appreciate far more than they did before 1914 the value of the Territorials. At the same time there is always a tendency among professionals to underrate the abilities of amateurs and, consequently, the more intercourse there is between Regulars and Territorials the better it will be for our defensive forces as a whole. In this connection there is much to be said for Colonel Codrington's suggestion that Regulars during the course of their professional training for promotion should be attached to Territorial units, and, needless to say, it should be made as easy as possible for Territorial officers to be attached for training to Regular units. The most important thing, however, for the well-being of the Territorial Army is that its peculiar difficulties should always be treated with sympathy and understanding by the Regular officers who are responsible for their training. It is no good, as Colonel Codrington points out, to regard Territorial units as if they were all fashioned in one mould and could be dealt with on exactly similar lines. A system of training that is well adapted to the needs of a town battalion might quite well be ineffective for a country bat-

* See "Japan Looks at the Russo-Chinese Dispute," by K. K. Kawakami, *The Nineteenth Century and After*, September, 1929.

talion. It is useless, therefore, to lay down cut-and-dried rules that are to be applicable to the training of all units, and this should always be borne in mind by Regular officers who have Territorials under their command.

In these Notes it has been suggested more than once that the Territorial Army should be represented directly on the Army Council so that its needs might be more adequately expressed than is the case at the present time. In default of this suggestion being adopted, it is possible that the Territorial Committee proposed by Colonel Codrington might be a useful method of putting forward in high places the views of Territorials. Clearly a committee composed of men who have actually commanded Territorial units would be able to give valuable advice on the training and organization of the Territorial Army.

* * * * *

The return home of the troops on the Rhine should draw the attention of their countrymen to the magnificent record of the British Army since it has been stationed in Germany. The tribute which Lieut.-General Sir William Thwaites is reported to have paid to the men of the 19th Field Brigade, R.A., at a recent inspection at Wiesbaden might be equally well applied to all the units of the Army which have been in Germany since the Armistice. "You are good soldiers," said the General, "you shoot straight, you do not misbehave, you do not get drunk, you treat the civilians in a proper fashion, and I shall always be glad to remember that I have had your Brigade under my command."

At the present time when our statesmen are so busily employed in devising pacts and treaties intended to make an end of war the quiet and unobtrusive work for peace of our soldiers in Germany should not be forgotten. It might well be urged that their magnificent behaviour in the occupied territory has done more to make the German people understand and appreciate the British point of view and the real British character than has been accomplished since the Armistice at all the conferences and discussions put together.

* * * * *

The announcement that Air-Marshal Sir John Salmond is to succeed Sir Hugh Trenchard as Marshal of the Royal Air Force next January marks the retirement from the Air Service of one of the outstanding figures of the war, and of the man to whom more than to any one else is due the development and organization of the Royal Air Force as it exists to-day. From the time he was gazetted to

the Royal Scots Fusiliers in 1893 Sir Hugh Trenchard has had an active and varied career. He served with the Imperial Yeomanry, the Bushmen's Corps and the Canadian Scouts during the South African War, in which he was dangerously wounded. Subsequently, he served for six years with the West African Frontier Force, and was Commandant of the South Nigeria Regiment from 1908 to 1910. He then took up flying and was Assistant Commandant of the Military Wing, R.F.C., 1913-1914. In the latter year he became Commandant of the Military Wing, R.F.C., and was a Wing Commander in France in 1914-1915. He was subsequently a Brigade Commander and commanded the R.A.F. in France from 1915 to 1917. The close of the war found him in command of the Independent Air Force.

It would be no real exaggeration to say that the wonderful *esprit de corps* and efficiency of the airmen in the war was largely due to the personal influence and popularity of Sir Hugh Trenchard. He inspired all who came in contact with him with his own energy and enthusiasm, and every officer and man in the Air Force had the most absolute confidence in his ability and power of organization. He never spared himself and he expected the same devotion to duty from all who served under him. Since the war his task has been a hard one. Upon his shoulders has fallen the work of organizing the Air Force into a separate Service. He has had to contend against many difficulties financial and otherwise. But no one can deny that his invincible determination and unflagging energy have built up a Service of which the country can be justly proud. He is now laying down his burden, but he is only fifty-six years of age and it is earnestly to be hoped that some new sphere of public work will be found for a man who has proved himself of such conspicuous value to his country.

* * * * *

Air-Marshal Sir John Maitland Salmond, K.C.B., C.M.G., C.V.O., D.S.O., who has been selected to succeed Sir Hugh Trenchard, has had a distinguished career as a soldier and an airman. He was born in 1881, and, after receiving his Commission, joined the King's Own Royal Lancaster Regiment. He was employed with the West African Field Force from 1903 to 1906 and took part in the South African War, 1901-1902. After the close of that campaign he took up flying and became an instructor in the Central Flying School in 1912. He served with marked success as an airman during the Great War and was in command of the R.F.C. and R.A.F. in the field in 1918. Since the war he has held

various important air appointments at home and was the Officer Commanding troops in Iraq, 1922-1924.

* * * * *

In August, within a few days of each other, there died suddenly two notable soldiers of the South African War and the Great War, General Lord Horne and Major-General Sir Robert Rice, both special friends of Earl Haig. They accompanied him to France as brigadier-generals commanding respectively the Royal Artillery and Royal Engineers of the I Corps. Horne subsequently rose to be commander of the First Army and Rice became Engineer-in-Chief of the British Expeditionary Force in France. Both were officers who before the war had had nothing but regimental experience and neither of them had graduated at the Staff College. But Haig from the first knew and appreciated their abilities. In Horne he recognized the power of leadership, placing his rearguard under that officer's command after the battle of Mons; in Rice he knew that he had a man in whose quick grasp of a situation he could depend, as was shown when he employed him to bring back information to headquarters at the first battle of Ypres. During the course of the war both Horne and Rice served in other theatres, the former in Egypt, the latter at Salonica, but both were recalled to France by Haig when he became Commander-in-Chief.

Henry Sinclair Horne was born in February, 1861. He saw no active service until the South African War, by which time he had reached the rank of major in the field artillery. He served throughout that campaign and received a brevet lieut.-colonelcy in recognition of his services. Then came another long period of peace, until August, 1914, during the last two years of which he was, as colonel and brigadier-general, Inspector of Horse and Field Artillery. During the Great War, after being G.O.C., R.A., of the I Corps, he was, in October, 1914, promoted major-general, and in January, 1915, selected to command the 2nd Division. He was in command of it in the unfortunate Aubers-Festubert operations and in the battle of Loos, when the British gas blew back on his troops and they failed to gain any ground. After the battle he went to Egypt as the Chief Military Adviser of a mission sent to decide on the organization of command and scope of the defences in that theatre of operations, and was entrusted with the command of the XV Corps. But at the end of March, 1916, he was recalled to France and given command of a new XV Corps placed opposite Fricourt; a command he held throughout the battles of the Somme. Towards the end of the same year he succeeded General Sir Charles Monro as commander of the

First Army. Legend has connected Horne's name with the invention of the creeping barrage, which at any rate was first tried and developed, in the British Army, in the III Corps next to the XV Corps in the Somme operations. On the other hand, no credit has been given to him for the great success of his Army at Vimy Ridge, and little for its stout defence in the spring of 1918, when he alone of the British Army commanders did not shift his headquarters to the rear. The final advance to victory during which his troops forced the Canal du Nord brought Horne to Mons where he had begun the war.

After the conclusion of hostilities he was for four years General Officer Commanding-in-Chief of the Eastern Command, and eventually retired on reaching the General's age limit before there was a vacancy on the Field Marshal's list.

An epigrammatist at G.H.Q. labelled Horne, as he was not a great talker and disliked public speaking, "the silent commander of a stationary army." He never sought publicity or courted popularity. But he was a sound and careful commander—a gunner first and foremost—who enjoyed the confidence of his troops and deserved the respect with which he was regarded by all who served under him.

Spring Robert Rice was born in July, 1858. He was senior under-officer at the R.M.A. Woolwich, and received his Commission in the Royal Engineers in 1877. After leaving Chatham he was employed in India on submarine mining, and after his return to England was successively adjutant of the Submarining Mining Battalion and of the School of Military Engineering. He had reached the age of forty-one before he first saw active service as commander of a field company and as C.R.E. at Ladysmith. Like Lord Horne he served throughout the South African War and received a brevet lieut.-colonelcy. He was the designer of the corrugated iron blockhouse of which so many were made. After being Chief Engineer of the Southern Command, he was in 1911 appointed to a similar post at Aldershot and in this capacity accompanied the I Corps to France as C.E. He rendered Sir Douglas Haig special service in the retreat, during the battles of the Marne and of the Aisne, and particularly at the first battle of Ypres, where the strong posts he had had made were of immense value. He was appointed, when the First Army was formed in December, 1914, to be its first C.E. and was promoted major-general. At the close of 1915 he was sent to Salonica as Engineer-in-Chief, but was brought back to France at Haig's request in April, 1916. His tour of service

as Engineer-in-Chief in France was marked by the great expansion of the Corps of Royal Engineers, and the organization of mining, camouflage, bridging, provision of water, anti-aircraft searchlights, electrical and mechanical companies and a variety of engineer schools. Under his supervision was carried out the great engineering operations at the battle of the Somme, in the advance after the German retirement to the Hindenburg Line, and in the battles of Arras and Passchendaele. Towards the close of 1917 he advised Sir Douglas Haig to send home the more elderly officers and to bring in fresh blood, and, as he felt that his own energies were failing, he himself returned home and was placed in command of the Forth Defences. At the conclusion of the war he retired.

Exceptionally smart as a young officer, Rice was an all-round sportsman, and an exceedingly shrewd observer with a gift of putting his finger on the spot. He would probably have gone further in any other branch of the Service. The slow promotion in the R.E. handicapped him as it did many others. He was unknown to the public, even *The Times* describing him in an obituary notice as "Engineer-in-Chief of Headquarter Units" and mentioning that "he served some time in France."

* * * * *

Another of our great opponents, General of Cavalry Liman von Sanders, died in August at the age of seventy-four. After four years' service in the Hessian Foot Guard Regiment, he transferred to the cavalry, and he commanded for short periods a cavalry regiment and cavalry brigade, but being a Staff College graduate spent most of his career on the staff and eventually, in 1911, was given command of a division. In 1913 he was selected by the Kaiser, who had ennobled him on the occasion of the twenty-fifth anniversary of his accession, to be the head of a party of German officers sent to reform the Turkish Army. He was given the rank of Turkish Marshal and General Inspector of the Turkish Army. The story of his difficult career in Turkey has been told by him in his "Five Years in Turkey." In twelve months he accomplished a great deal and established such a reputation that when Gallipoli was threatened he was placed in command of the Turkish Fifth Army and entrusted with the defence. In a month he carried out changes in the organization of the Turkish defences which entirely upset the Allied chances of success. After his great success in defeating the attempt on the Peninsula, however, the jealousy of the Turks and also of the German Mission in Turkey prevented his being actively employed, and it was not until General von Falkenhayn had failed and lost

Gaza that Liman was again called upon to take up an active command. It was then too late for him to do anything effective, but he countermanded his predecessor's orders for retirement and was contemplating an offensive when Lord Allenby's final blow fell upon the Turks. Nearly captured himself at his headquarters at Nazareth, he in vain tried to reorganize resistance. The language difficulty and the passive resistance of the Turkish higher officers to his German methods made his task at all times, and especially in disaster, well-nigh impossible. His personal influence was of no avail and he made little attempt to exercise it, rarely leaving his headquarters, and he must have handed over his command to Mustapha Kemal Pasha with feelings of relief. At one time his name was on the list of Germans to be handed over to the Allies—on account of his supposed connection with the Armenian massacres—but this delivery was not enforced. The British troops at any rate had no reason to regard him as other than a chivalrous opponent.

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The Editors much regret that owing to an unfortunate printing error the name of the officer, whose Essay was placed second by the Referees in the recent Bertram Stewart Prize Competition, was incorrectly spelt. The name of the officer in question should be *Major C. A. P. Murison*, M.C., R.A., and not *Major C. A. P. Munson* as it appears on page 234 of the *Army Quarterly*, July, 1929.

6th of September, 1929.

ONE HUNDRED PROBLEMS ON MECHANIZATION

BY COLONEL J. F. C. FULLER, C.B.E., D.S.O.

PART I

INTRODUCTION

TO-DAY mechanization is definitely part of our general policy of army reorganization, and only quite recently a manual on the newer arms has been published. This book, entitled "Mechanized and Armoured Formations," deals almost entirely with completely mechanized units, and is obviously not intended to replace in any way Vol. II of the "Field Service Regulations," in which is outlined the tactics of the army we at present have. It appears to me, however, that as mechanization proceeds it will become increasingly difficult to span the gap between completely armoured forces and those which are but partially mechanized, such as the two experimental mechanized brigades at present on trial. Eventually, no doubt, Vol. II "Field Service Regulations" will be expanded to deal fully with the numerous problems semi-mechanization will give rise to, or a third volume will be added to this publication. It is with the idea, not so much of spanning this gap, but of stimulating thought on how it can be spanned that I have written this paper. Each problem is dealt with very briefly, and those interested in mechanization are urged not to accept off-hand the conclusions laid down, but to think them out for themselves, and so arrive at decisions of their own. Some day an official answer will have to be given to each of these problems as well as to many others, and the more they have been examined and analysed by thinking soldiers, the more likely is it that the official answers will be right.

I. MECHANIZATION AND THE PRINCIPLES OF WAR

(1) *Against a non-mechanized enemy.*—Against a non-mechanized enemy and over ground suitable for A.F.Vs., it is obvious that all the principles of war can be more rapidly applied. The object can

more easily be maintained, because mobility and security enable concentration, surprise and offensive action to be developed. Further, economy of force and cooperation are more readily gained on account of the enemy's inferiority in protected offensive power.

(2) *When both sides are partially mechanized.*—In this case the governing principle is economy of force, which can be gained by a correct distribution of troops to ground ; the non-mechanized arms seeking security from mechanized attack by operating over the more broken and enclosed areas, whilst the mechanized ones develop their mobility on the less difficult spaces, working at a distance but still in cooperation with the former, which should be looked upon as the base of their movement. The mechanized arms should attempt to surprise the enemy by concentrating offensive power against the decisive point, which is the enemy's flank or rear.

(3) *When both sides are fully mechanized.*—Surprise, mobility and concentration against the objective are the governing principles, from which should be developed security and offensive power in cooperation, so that economy of force may result. As mobility will probably be the same for both sides, surprise becomes all important.

II. STRATEGICAL PROBLEMS

(4) *General strategical influences.*—Strategy is largely the art of movements before battle. In the past, roads and railways have been all important. Movement off the roads being difficult, the result has been that the front of an army, normally, protected its rear. Mechanization facilitates movement off the roads, consequently flank and rear attacks are more likely. Future warfare would appear to approximate more closely to sea warfare in an ocean full of islands and shallows.

(5) *Importance of communications.*—Communications are now easier to attack, consequently their defence becomes doubly necessary. Communications are vital to armies depending upon petrol—again we get a naval comparison. In sailing-ship days communications were not so important as in the days of steam. The results of steam warfare at sea were coaling stations, defended harbours, etc. Their land counterparts are likely to be evolved in mechanized warfare.

(6) *Importance of fortifications.*—There have always been two forms of war—siege and field. When mobility has been increased fortifications have followed ; this is likely to take place in the future.

The types of fortifications will, however, change. Natural obstacles will become more important, areas in place of localities will have to be defended, and greater depth must be sought. Possibly block-houses, or Martello towers, protected by minefields, will prove useful.

(7) *Influence of industries.*—Industry is the base of mechanization. Non-industrial countries will have great difficulty in maintaining mechanized armies in war. They may be compared to the Confederacy in the American Civil War. These powers will be at so great a disadvantage that they may not be able to wage war. Petrol supply and command of the sea will increase in importance. The same applies to the maintenance of a large Air Force.

(8) *Influence of mechanization on our Army.*—What is our army for? To safeguard the Empire; it may be compared to an Imperial fire-engine and police force to extinguish war and to maintain order. It has never been organized for continual warfare; such wars are quite secondary. The advantage of mechanization is that it reduces space by economizing time; also that it enables us to support our allies with a small but powerful army of a type they are not so likely to possess. Its disadvantage is that order cannot be maintained by machines; occupation and human touch are necessary. It looks, therefore, as if, in the future, we must have two forces—a mechanized striking force, and a motorized (walking) force of occupation.

(9) *Influence of mechanization on conscript armies.*—Mechanization is not suitable for conscripted armies, because time for training is so limited. Republics and highly democratic nations are frequently afraid of professional armies: they fear possible dictators. If we lead in mechanization other nations will have to follow suit, even if only partially. One result is that they will have less to spend on their Air Forces and Navies. Is not conscription becoming obsolete?

(10) *Influence of mechanization on command.*—Forces are likely to be more scattered, manœuvres will constantly take place, distances will be great, consequently command will have to be speeded up. Wireless provides a solution; but will not maps have to be specially designed for mechanized forces, and will not orders have to be far simpler? Frequently code words meaning complete operations will have to be used. If so, more and more will initiative be demanded of subordinate leaders.

III. TACTICAL PROBLEMS (GENERAL)

(11) *Area warfare.*—Strategy always influences tactics, consequently, should movement off the roads increase, existing linear

tactics will be replaced by area tactics, by which is meant that the front of an army will no longer so completely protect its rear as formerly; attacks will take place in areas and not against lines. Flank and rear attacks will become more prevalent, and must be guarded against as well as attacks from the air. This change in tactics will alter present-day military organization.

(12) *Influence of rear attacks.*—Should attacks in rear become more prevalent, all-round defences will have to be established, and must be such as can deal with A.F.Vs. The rear services will have to be included within the outpost line, and landing grounds will have to be defended against armoured raiding forces.

(13) *Bullet and armour.*—The bullet is the base of all our present tactical troubles. It prevents infantry closing, it forces artillery to keep well in rear of the infantry front, and it denies shock power to cavalry. Armour can defeat the bullet, and the value of armour does not lie in being able to keep out *all* projectiles, but a number of projectiles. Thus, if armour can keep out the ordinary bullet, this projectile has been defeated, in spite of the fact that a heavier bullet, or a shell, may penetrate the armour.

(14) *Infantry and Tank areas.*—As area warfare confronts us, it is becoming more and more important to consider the value and use of armour with reference to the nature of ground. Economy in fighting will only be gained when the ground suits the weapon used. The surface of the battlefield may be divided into two areas, namely, those over which A.F.Vs. can operate easily, and such as are suitable for infantry protection. The first will generally be open, flat, or undulating ground, and the second wooded, or mountainous, country. Infantry want broken ground for protection, and tanks want level ground for movement—they carry their own protection.

(15) *Bounds by areas in place of lines.*—Movement is generally best carried out by bounds. At present we think of bounds almost entirely from an infantry point of view. Bearing in mind tank and infantry areas, it would appear more economical to fix bounds with reference to arms. Thus, an area should be divided up into bounds which are defined by the nature of the ground compared to the most suitable arm which can be used over it, rather than by the endurance of the troops, e.g. a tank bound, an infantry bound, etc., etc.

(16) *Infantry and Tanks in cooperation.*—Cooperation between infantry and tanks is gained by examining the nature of the ground and distributing arms accordingly, using infantry in infantry (or

anti-tank) areas, and tanks in tank areas. Frequently the ground will be of a half-and-half description, in which case close cooperation between tanks and infantry becomes necessary. Normally, infantry should not immediately follow the tanks ; in place, the tanks should be given their own starting-line, and so should the infantry ; cooperation being established by means of a time programme. This programme should be so arranged that the infantry line of advance is sufficiently close to that of the tanks to enable the infantry to rush forward under cover of the confusion caused by these weapons.

(17) *Independent use of Tanks*.—Independent use of tanks is justifiable in the following cases : (a) in an attack on an enemy's rear unprotected by artillery ; (b) under cover of smoke, twilight, or night. Generally speaking, tanks require artillery protection, and as horse-drawn, or tractor-drawn, guns have to be unlimbered before firing, this protection should be sought through self-propelled pieces.

(18) *Independent use of Infantry*.—In mountainous and wooded country where A.F.Vs. cannot well be used, infantry will have to work independently. To-day, infantry are mainly trained for open warfare, but in the future it would appear that, as frequently their work will lie in mountains and forests, their training will have to be radically changed. They will have to revert to the old light infantry idea, and become highly intelligent scouts and first-class rifle shots. They will have to move rapidly over difficult country, stalking the enemy rather than attacking him. Their main protective weapon will be mountain artillery.

IV. TACTICAL PROBLEMS (ORGANIZATION)

(19) *Organization in general*.—An organized army possesses the following characteristics : it can find, protect, hit, hold and smash. Holding and hitting may be bracketed together. To-day, finding is carried out by cavalry ; protection by artillery ; holding and hitting by all arms, and so also smashing. With a mechanized force the same characteristics should be maintained ; finding being carried out by armoured cars and aeroplanes ; protection by self-propelled artillery and anti-tank weapons ; holding and hitting by anti-tank weapons and light and medium tanks ; and smashing by highly mobile armoured machines of which, to-day, no type exists.

(20) *Organization in detail*.—In thinking out the detail of a mechanized army, the first requirement is to build up a strong

protective trunk, which may be compared to the battleships of a fleet. Secondly, to hinge on to this trunk two forces so organized that they can find and hold the enemy : these may be compared to cruisers and destroyers. Thirdly, to hold in hand a pursuing force, which may be compared to a battle cruiser squadron.

(21) *Difficulty of Mixed Degrees of Mobility*.—Since mechanized weapons have been introduced, more and more has it become apparent how difficult it is to maintain a uniform degree of mobility in a mixed force. When possible, separate roads should be allotted to mechanized vehicles, preferably on the flanks of the marching column. A.F.Vs., attached to the advanced guard, should move on either side of the advanced guard if roads permit of this, or in the interval between the advanced guard and the main body. If circumstances allow, the remainder of the A.F.Vs. should move in rear of the marching rearguard ; they should start considerably after the rearguard has moved off, working forward by bounds of several miles at a time. When thus placed, marching troops must be prepared to clear the road at a moment's notice to let the A.F.Vs. through.

V. TACTICAL PROBLEMS (ADMINISTRATION)

(22) *Convoys and dépôts*.—The present system of supply in the field is, tactically, a simple one. The front of an army protects its rear, consequently rail and road transport require little further protection. In area warfare this protection falls to the ground, because flank and rear attacks become more easy. The result is that a reversion is likely to take place to the supply system which held good during the seventeenth and eighteenth centuries, namely, defended field dépôts and convoys working in between.

(23) *Protection of a convoy*.—In armies largely dependent for their mobility on petrol, protection of the convoys working in between the field dépôts will become all important. From this it would appear that special mobile L. of C. protective units will have to be created. Whilst to-day L. of C. defence units are mainly static, to-morrow they are likely to become mobile.

(24) *Petrol supply*.—A century or so ago armies in the field depended very largely on foraging in order to augment their supplies. In recent times little foraging has taken place, but the advent of mechanized forces may once again bring it to the fore, mainly on account of petrol supply. Petrol and oil will become so necessary to the life of a mechanized force that every endeavour will be made

to seize all stocks found in the enemy's country. Practically every town and village in Europe now contains one or more petrol pumps ; all these will be used in war in order to augment supply and so cut down transport.

VI. TACTICAL PROBLEMS (RECONNAISSANCE)

(25) *General reconnaissance*.—Reconnaissance may be divided under two headings, strategical and tactical. The first aims mainly at finding, and the second at protecting. To-day, the first is carried out by aircraft, and the second by cavalry. The introduction of the armoured car establishes a new reconnaissance zone, which may be placed between the present strategical and tactical zones. The armoured car can act strategically or tactically, and it can cover the ground between the cavalry screen and the aeroplanes in front. Further, its mobility enables an all-round reconnaissance of roads to be made, a very important duty in area warfare.

(26) *Keeping the enemy under observation*.—As mechanized warfare progresses, it will become more and more important not only to find the enemy but to maintain touch with him once he is found. The reason for this is obvious, namely, his increased mobility enables him to shift his position, especially at night-time. Armoured cars should prove extremely useful to maintain unbroken contact.

(27) *Mechanized warfare maps* (see Problem 10).—Our present maps show the surface of the ground as it is, but do not show it with reference to mechanized warfare. Reconnaissance will be vastly speeded up when maps show the detail which a commander of a mechanized force, or weapon, requires to know, namely, where his machines can move freely, can move slowly, or cannot move at all. The army which first possesses such maps will have an enormous tactical advantage in war.

(28) *Ground reconnaissance*.—Ground reconnaissance will become more and more important, as will be seen from Problem 27. In order to distribute a mechanized force correctly, a commander must have detailed knowledge of the types of ground over which his machines are going to move, consequently ground reconnaissance should not simply end with a general description of the ground, but with one which compares the ground to the various arms which may be called upon to move over it. (See also Problem No. 15.)

(29) *Reconnaissance during battle*.—The object of reconnaissance during battle is to ascertain the exact position and strength of the enemy's forces. It may be either offensive or protective. In the

first case the reconnoitring force fights for information, and in the second it shields its own side against similar hostile action. Armoured cars and light tanks should prove useful for this type of work, the first finding the enemy, and the second either attacking him, or protecting its own side to gain, or to prevent the enemy gaining, information.

(30) *Communications*.—Communication of information is of importance to a reconnoitring force. Cable communication is so vulnerable that in the future the two chief means are likely to be wireless and armoured cars, the latter sometimes taking the place of the present-day vulnerable despatch rider. In highly mobile warfare the reconnoitring force must be fully acquainted with the idea in its commander's head as well as the detail of his plan of action, because situations will change so rapidly that unless the reconnoitring officers know what his idea is they will not be in a position to supply the information which will help him to modify, or develop, his plan.

(31) *Code messages* (see Problem 10).—It will frequently be impossible to send back detailed reports; also, in highly mobile warfare, as situations will be constantly changing, in many cases detail will become dangerous. What a commander particularly wants to know is the position of the enemy at a definite time, consequently, if the reconnoitring party can, at short intervals, send back by wireless code the map squares occupied by the enemy's forces, with a letter denoting his strength and his action, e.g. A = strong, B = weak, C = attacking, D = retiring, E = moving east, etc., etc., the commander in rear will obtain practically all that he wants to know. Communication by map squares is likely to play an important part in the future.

VII. TACTICAL PROBLEMS (PROTECTION)

(32) *Protection in general*.—As mechanization presents unlimited opportunities for surprise, and as in area warfare there is no definite front as was formerly the case, general protection will become increasingly necessary. To-day, an army is nowhere safe; it can be attacked from great distances by aircraft, and from considerable distances by armoured cars. When within twenty miles of its enemy it may also be attacked by tanks at short notice; consequently local protection is daily becoming more important, so that in future the posting of a few piquets and sentries will be totally insufficient.

(33) *Protection at rest.*—Camps a hundred miles and more in rear of the front, ammunition dumps, railheads, etc., will in future have to be protected not only against aircraft but against raids carried out by armoured cars and ordinary motor-cars manned by soldiers. The importance of protecting headquarters, transport and artillery lines against air and A.F.V. attack is daily becoming more noticeable, and more and more is it necessary to locate these in anti-tank areas, and to hide them away from observation.

(34) *Outposts* (see Problem 12).—Formerly, outposts were mainly supplied by infantry, and were distributed so as to protect resting forces from cavalry and infantry attack; they were placed sufficiently far out in order to gain time for the resting forces to get under arms. In the future, outposts must be prepared to meet A.F.V. attacks, and as mechanized weapons are highly mobile the outpost line will have to be pushed farther afield. It will have to be strengthened by anti-tank weapons and particularly artillery. In front of it will be thrown forward an armoured screen, and in front of this screen aircraft will operate. If aircraft and armoured cars can keep constant contact with the enemy they will be able to communicate his movements to the outposts. These should be organized so as to meet all types of attack. From this it will be seen that in future the old outpost system will have to be made more elastic, and that its resisting power will consist in closer cooperation between the various arms.

(35) *Protection on the move.*—As has already been noted, that the flanks and rear of a force are daily becoming more vulnerable to A.F.V. attack, and also to ordinary motor-car attack, to march a division in one long column is to ask for trouble, not only because its flanks are very vulnerable but because it offers a magnificent target to air attack. It is considered that smaller columns, such as brigade groups of all arms, are more suitable, and that they should march in echelon with their strategic flank thrown back, or else advance in an arrow-head formation. If they do so, the transport should move within the strategic flank, or behind the centre of the arrow-head. Armoured cars, or, failing them, ordinary motor-cars, should be sent well out on the flanks and front, and also in rear, so as to give the brigade groups notice of an enemy's approach. If one brigade group is attacked in force it should assume the defensive until the commander has gained time to manœuvre the remaining two.

(36) *Advanced guards.*—When enemy A.F.Vs. are likely to be met, as they always will be in organized warfare, the advanced

guard must be strongly reinforced by these machines, the armoured cars being moved well forward in order to gain contact, and the anti-tank weapons being so distributed that they can rapidly block the more likely enemy approaches. Tanks should be kept well concentrated and ready to move out in force ; they should not be used for reconnoitring or for blocking approaches.

(37) *Flank guards* (see Problem 33).—In the past a widely extended advanced guard has frequently proved sufficient to protect the flanks of a marching column. In the future this will not be the case, because armoured cars have re-introduced the old light cavalry attack, such as carried out by the Scythians and other mounted peoples. The old elastic square in which armies formerly marched will have to be re-introduced, and in such a form that the flank guards can protect the flanks of the marching column against A.F.V. interference. These flank guards are likely to consist of armoured cars thrown well out to the flanks, supported by small concentrated forces of tanks.

(38) *Rearguards*.—With an army which largely depends on petrol supply, the protection of the rear becomes more and more important. Consequently rearguards will have to be strengthened with A.F.Vs. In a rearguard action the governing principle is surprise ; formerly the rearguard deployed in order to compel the pursuing force to do likewise, and when attacked it counter-attacked. In the future it will be more profitable to establish a number of ambushes by means of well-hidden A.F.Vs., which should not wait until the enemy deploys and attacks before they counter-attack, but which should aim at suddenly springing upon the enemy whilst he is still in close formation. A pursuing force is generally somewhat disorganized, and though its morale is usually high, surprise attacks of this nature are likely not only to accentuate its disorganization but to reduce its *élan*.

(39) *Protection in attack*.—In attack, the first problem is the correct appreciation of ground to weapons. The second problem is the proper distribution of artillery, by which is meant that the guns should be placed so as to be in a position to assist whichever arm, infantry or tanks, is to play the more important part. Thirdly, anti-tank weapons should be distributed in such areas in which the enemy is to be held back ; and, fourthly, tanks should be concentrated in those areas in which it is intended to develop the offensive. The whole attack should be organized on a protective base, the offensive being launched from this protection.

(40) *Protection in defence*.—Protection in defence is very similar

to protection in attack, but as the enemy has the initiative it is of the greatest importance that as strong a reserve as possible is kept in hand. The defensive screen, which is to hold up and delay the enemy, should mainly consist of anti-tank weapons, behind which a reserve of tanks is held which can counter-attack the enemy in flank, or rear, at short notice. If the protective screen can hold up the hostile A.F.Vs., it should be remembered that the enemy will almost certainly turn towards his opponent's flanks and rear.

(41) *Protection of rear services.*—The protection of the rear services will always present a difficult problem, and its solution will mainly depend upon the strength of their escort and the locality in which they are parked. As regards the latter, parking places should either be sufficiently close to the combatant troops to make it dangerous for an enemy to attack them, or else they should be situated in anti-tank localities, such as a loop in a river line, or in wooded country which offers few lines of approach. In thinking out their position, defence against rear attack must not be forgotten.

(42) *Protection of infantry.*—In the future, infantry will most certainly be provided with anti-tank weapons, either heavy machine guns or light pieces of artillery. It should be remembered, however, that their main protection against A.F.Vs. is still provided by the field guns in rear. These guns will have to be moved much closer up to the infantry than is generally the case to-day. The guns should form a kind of anti-tank fortress into which the infantry can retire when attacked by tanks, the retirement being carried out under cover of the infantry anti-tank weapons. It must be remembered that infantry anti-tank weapons, even if moved in mechanical vehicles, cannot for long remain in static positions when attacked, and that frequently it will be better to keep them somewhat in rear of the infantry front in readiness to move out to any threatened point at short notice.

(43) *Protection of artillery.*—In the last problem it was suggested, that when A.F.Vs. attacks are likely, artillery should form a mobile fortress in rear of the infantry. This fortress will have to be reinforced by anti-tank weapons, such as heavy machine guns ; these weapons being distributed so as to cover dead ground as well as the flanks and rear of the guns. If the waggon lines are separate from the guns they will also require all-round protection.

(44) *Protection by night and smoke.*—Night-time offers two categories of protection ; the first, protection from direct observation, and the second, protection through ability to move unseen from one position to another. With A.F.Vs. it should not be difficult

to shift the position of a considerable force several miles under cover of darkness in an hour or two, and by so doing throw the whole of the enemy's information out of gear. The use of smoke as cover is well recognized, but when A.F.V. meets A.F.V. more and more is it likely to grow in importance ; smoke-clouds being used not only to blind the enemy, but as curtains behind which small manœuvres can take place.

(45) *Protection by feints.*—As mobility increases, the power of delivering feint attacks becomes more feasible. Protection can be gained by false concentrations, false retirements, etc., etc., which will mislead the enemy, and cause him to commit all kinds of errors. As this is so, the offensive-defensive is likely to play an important part in future warfare, the enemy first being misled and persuaded to commit himself, and then strongly attacked when in a false position. The movement of an empty bus column might well wreck an enemy's plan.

(46) *Protection by aircraft.*—Protection by aircraft is well recognized. It first consists in gaining command of the air ; secondly, in discovering the position of the enemy, and, thirdly, in attacking him. The cooperation of armoured cars and A.A. guns with aircraft is likely to prove a common operation. The armoured cars moving under cover of aircraft protection, and in their turn protecting the A.A. guns, whose duty it will be to cooperate in the air attack on the enemy's aircraft and to signal to the protective aircraft the arrival of hostile machines.

End of Part I.

THE GERMAN OFFICIAL HISTORY OF THE AUTUMN, 1914

THE fifth volume of the German official history is of more than usual interest ; for, with the sub-title " The Autumn Campaign, 1914," * it deals with many matters not hitherto touched on from the German side by any official or authoritative work. Among them are : the German strategy from mid-September until the beginning of November, the Race to the Sea, the fighting in Artois and Flanders preceding the battle of Ypres, and Hindenburg's advance towards and retirement from Warsaw. It will be recalled that the first and third volumes carried the narrative up to the stand on the Aisne after the battle of the Marne ; the second volume was concerned with the campaign on the Eastern front, and the fourth with the organization of the railways. In the present one the campaigns both on the Eastern and Western fronts are included, the preface stating that

" after the simultaneous setbacks on the Marne and in Galicia about the middle of September the close reaction between East and West became so marked that the procedure hitherto adopted of narrating events for a definite period in separate volumes must be abandoned in order to exhibit clearly the intimate connection between the wars on the different fronts, and in particular the effect which the tension and crises in the different theatres had on the situation as a whole."

There is a further change that the scale of the narrative has been much reduced in order that the volumes shall not be of inordinate length. We have therefore a most readable story of the war from the point of view of the Supreme Command and of the larger movements without much more of the actual fighting than its objects and general results. The descriptions of the battles will be or have been dealt with in separate monographs which have been prepared by various hands to save the time of the compilers of the general narratives. The sixth volume, which is to complete the history of the year

* *Der Weltkrieg, 1914-1918. Fünfter Band. Der Herbst-Feldzug, 1914. Im Westen bis zum Stellungskrieg. Im Osten bis zum Rückzug.* (Berlin, Mittler, 34 marks.)

1914, is to follow shortly,* and this is most necessary ; for the present one, though it is conveniently brought to an end for the Eastern theatre with the Austro-German retreat from Warsaw, terminates for the Western theatre on the curious date of the 3rd of November, which is fixed as the day on which trench warfare (*Stellungskrieg*) began. There seems no reason or justification for chopping "First Ypres" into two parts in this way, except perhaps to avoid bringing a volume to a close with the defeat of the Prussian Guard.

In general, the volume is one long criticism of the first two months of the career of Falkenhayn as Chief of the General Staff and actual commander of the German Armies. As it reveals a good deal more than he told us in his book, "General Headquarters 1914-16 and Its Critical Decisions," it may cause many to revise their judgments of him. A footnote significantly points out that his book was "written in 1919 from memory without the help of any personal notes made during the operations whatsoever, and with only partial assistance from the official records."

The volume begins with a description of the situation on the evening of the 14th of September, 1914, when Falkenhayn took over the duties of Chief of the General Staff in addition to those of Minister of War. He had been warned on the 10th of August that if anything happened to General von Moltke he would be required to replace him. The outlook was gloomy. The German plan of delivering a crushing blow to France within six weeks of mobilization and then transferring the bulk of the troops to the East to smash Russia had failed. Falkenhayn had to come to a decision whether he would continue the offensive campaign in France or stand on the defensive there and withdraw what troops he could to go to the assistance of the hard-pressed Austrians, who had been in no way relieved by the victories of Tannenberg and the Masurian Lakes. The German right flank in France was open ; it might be presumed that the French would continue their attempts at envelopment. To transfer strong forces to the East "would lead to unbearable conditions" in the West, no doubt defeat and invasion. Falkenhayn decided at once to resume the offensive in the West with a view to obtaining a final decision there. It was recognized that this would take weeks, and the question was whether the East could hold out so long. The success of the battle of the Masurian Lakes appeared to offer the possibility of reducing the forces in East Prussia and sending some direct assistance to Austria. For this purpose a

* It has appeared since the article was written and will be reviewed in a later number.

new Ninth Army was formed of the two corps sent in August from France (Guard Reserve and XI), two corps (XVII and XX) taken from the Eighth Army, Woyrsch's Landwehr Corps and 2½ Landwehr divisions, etc. It was placed under Hindenburg, who handed over the reduced Eighth Army to General von Schubert. The only reinforcements Falkenhayn sent to the East were the new XXV Reserve Corps and a cavalry division, which went to strengthen the Eighth Army. The German difficulties as regards lack of trained reinforcements, especially officers, gun ammunition, especially for heavy artillery, and suitable railway communications are enumerated, and there is a characteristic sketch of Falkenhayn in which his lack of strategic training and diffidence in dealing with the Army commanders, all senior to him, are duly emphasized.

Falkenhayn's first idea for resuming operations in France was to withdraw the right wing, the First, Seventh and Second Armies (in front of the British on the Aisne and of the French Fifth and Sixth Armies on either side of them) until the Sixth Army, already moving from Alsace, and other troops combed out from the front could be assembled behind the right, say around Maubeuge, to deliver a heavy enveloping attack. It was a resumption of the original German plan. The General Staff, however, advised him that the troops would hardly stand further rearward movements without demoralization. Falkenhayn was of course by no means desirous of opening his tenure of command by a retrograde movement, and he abandoned his first plan with the more readiness as Colonel Tappen, on the 15th, gave him a reassuring account of the front, being of opinion that the First Army was now out of danger, and the French and British apparently "at the end of their powers." They had, according to Tappen, "overstretched their bow." The operations on the 14th of the First, Seventh, and Second Armies, cooperating under General von Bülow, had had a favourable course in so far as the gap between the First and Second Armies, formed during the battle of the Marne, had been closed, and the penetration of the enemy into it prevented. Falkenhayn therefore decided to stand on the defensive and accept battle. Kluck (First Army) on the outer flank, fearing envelopment—with some reason—wanted to counter-attack at once; but Bülow's plan for the Seventh Army "to throw the enemy in front of it [the left of the French Fifth Army and right of the B.E.F.] back on the Aisne," whilst the First and Second, on either side of it, assisted by attacking convergently inwards, was allowed to proceed. Bülow's efforts, continued on the 16th, 17th and 18th, resulted in failure, and the local independent

actions of the Armies of the Centre (Third, Fourth and Fifth) broke down under artillery fire, and "were without any external result ; they had not succeeded in pinning down any French forces, whilst they did prevent the troops having rest, and wore down both their physical and their moral powers."

Notwithstanding, Falkenhayn on the 17th, realizing that the French threat at envelopment on the west was taking shape, ordered the Second, Third, First and Fifth Armies to make "short, sharp offensive strokes when the situation permits." On the 18th, the information about the French movements westward was very definite, and the Crown Prince Rupprecht, commanding the Sixth Army, was ordered

"to throw back the French now appearing at Roye and Montdidier with the first forces that arrive [XXI Corps] and take over the protection of the right flank of the Armies. Main object of the Sixth Army must, however, always be to bring about a decision on the right flank as soon as possible, even if the troops have to be thrown in one after the other."

Falkenhayn added in explanation, "even battalion by battalion." He had given orders on the 16th for the siege of Antwerp to be pushed on with, in order to ensure the safety of the German communications ; and Army detachments of second-class troops, under Falkenhayn, Strantz, and Gaede had already been organized in Alsace to take the place there of the Sixth and Seventh Armies.

The Second, Third, Fourth and Fifth Armies were now given definite orders to attack, but, ammunition being short, their commanders protested, and Falkenhayn had to revoke his orders and substitute "offensive strokes" for "attacks." The Crown Prince's suggestion to attack Verdun had to be turned down for the same reason. A series of half-hearted offensives were carried out, 16th-22nd of September, on the Aisne and near Rheims, without result. Falkenhayn, to assist the progress of the centre, now ordered a general attack of all the Armies for the 26th, with the strategic idea that the outer Armies should wheel inwards and envelop the Allies ; and his troops did their best to respond.

"The 26th was the bloodiest battle-day of the whole of this period of the war. . . . A great part of the German Armies suffered irreplaceable loss of officers and men in these battles, and, what was more serious, was the disappearance of the unshaken faith in the irresistibility of the German attack, which the Marne had not destroyed,"

says the German official history. This agrees with what the British official account records of the 26th on the front of the B.E.F. :

"the total losses must have been severe ; dead were lying thick before

the trench the Germans had carried, and, looking to the havoc wrought by the British artillery, the number of enemy killed alone must have exceeded the total casualties of the British."

The only success which attended this great effort was the capture of St. Mihiel by Strantz's Army Detachment, which pushed out from Metz.

Meanwhile the French High Command, relying on the strength of field defences and modern gun and rifle fire, untroubled by the German counter-attacks, continued shifting troops to envelop the German right. Instead of being able to wait until the Sixth Army had assembled and employing it for a great blow, Rupprecht had, as Falkenhayn expected, to hurry his divisions into battle one by one as they came up, and use the cavalry to lengthen the line, instead of for a wide enveloping movement. It may be mentioned, however, that Hollen's Cavalry Corps, which was eventually freed to make a raid and got as far as Hazebrouck, hastily retired at the sight of opposition, or, as it is put, "judged that the operation would take too long, and the most important task for his corps lay in taking part in the decision of the battle on the right flank of the line." The great enveloping attack by the Sixth Army conceived by Falkenhayn was impracticable. The German front could not be extended westward from Noyon to the coast, it was enveloped by the French and its right flank had to be turned back northwards. Undeterred, Falkenhayn accepted the situation and attempted a smaller operation. He ordered an enveloping operation at Arras, combined with a break-through at Roye so as to cut off and capture the French between those two places. The German plans were a good deal more comprehensive than their opponents realized at the time. Both attacks failed with heavy loss, but the Arras battle was continued for many days, without substantial success, although at times the French thought of retiring. More troops came up and the line extended northwards, twenty-four divisions originally belonging to the Sixth Army or combed from the front were thrown in successively, and organized into the new Second and Sixth Armies. Falkenhayn now changed his ground and tried a break-through at Arras in combination with envelopment from La Bassée. Disappointed again and only the narrow strip of ground between Lille and the coast being still open, he next ordered an envelopment from the coast and again a "break-through at Arras." Crown Prince Rupprecht felt it necessary to point out that there was little hope of succeeding in a renewed attack there, as his units had failed when they were stronger, and it could not be expected that they would now do better. Béthune was

therefore selected as the place for the break-through. It was at this moment that the British Expeditionary Force began to make its appearance in Flanders, and Falkenhayn hoped to get them "in a sack."

One piece of luck, however, befell Falkenhayn, the most opportune fall of Antwerp. Beseler's three divisions therefore became available for the great turning movement along the coast, and he added to them four new Reserve corps as a new Fourth Army. It is claimed that this operation would have been successful if the Belgians had not foiled it by letting in the waters of the ocean: "Not the enemy, but the powers of nature prevented the advance of the German troops." At Béthune, however, this cannot be pleaded and Sir Horace Smith-Dorrien's troops completely defeated the attempt to break through. Falkenhayn again reduced the scope of his plans. Collecting what additional divisions he could, he ordered a break-through south-east and north-east of Ypres. By the 3rd of November this also had failed, but it is claimed as a victory that the sea had been reached.

The reasons for the failure of the German troops to obtain any success of importance is of interest. In the Race to the Sea it is declared to be

"the nature of the country to which the French tactics were very cleverly adapted. All localities, farms and châteaux, whether alongside each other, or one behind the other, were occupied, organized for defence and defended with obstinacy. We were forced to use numerical superiority, often unknowingly great superiority, against inferior forces. At the first village, perhaps, all went with a great rush; at the second, third, and fourth the *elan* was not so great, and the battles began to resemble obstinate fortress warfare. Any advance cost very much time and very much blood and exhausted the fighting power of the troops to a singular degree."

In the fighting in Flanders German numerical superiority is admitted—it will be recalled that in the official monograph on the battle of Ypres, published some twelve years ago, the Allies were represented as being 40 divisions against 25—and the lack of success is attributed to the inundations, the lack of gun ammunition and artillery observation, unfavourable ground and weather, the employment of the half-trained Reserve divisions, and the tough fighting of the Allies. "Every hedge and every thicket and wood was resolutely defended. Every piece of broken wall and ruined house had to be won separately in murderous hand-to-hand combat."

As regards the Reserve corps, it is stated that they contained 39 per cent. of fully-trained men, but the officers and N.C.O.'s were

too old. They were, however, singularly strong in heavy artillery. Owing to the fall of Antwerp, 20 batteries of 8-inch howitzers, and 12 batteries of 5.9-inch howitzers, with 12 batteries of 4-inch guns could be allotted to the five Reserve Corps in Flanders, besides 6 heavy batteries and 2 Engineer regiments to the Fourth Army. Falkenhayn fully recognized the indifferent training of the corps, but relied on their

“enthusiastic will to attack and their unbroken *élan*. He also seems to have expected that as the new corps would make their thrust against the flank of the enemy, they would experience little resistance.”

No praise is given to Falkenhayn ; but the way he took hold of a situation into which Schlieffen's plan and Moltke's execution of it had put the German Armies, evolved new and far-reaching plans and resolutely carried them out, marks him as a great leader. Had he been opposed by less determined enemies, he might well have succeeded.

It is of interest for a moment to consider what would probably have happened if the Belgians had not let in the sea, which it is claimed prevented German victory. The German turning force, composed exclusively of Reserve divisions, had they pushed the Belgians back, would have found the defences of Dunkirk in front, Sir Douglas Haig's corps, not yet engaged, on their southern flank, and the guns of the British fleet on the northern. In the difficult country, intersected by canals, it would have been easy to overwhelm the German reservists in detail, not to say cut their communications, by gun fire alone.

The operations on the Eastern front are of much smaller interest than those on the decisive one, but deserve our study as demonstrating what a few divisions of good troops can do against huge masses of armed men of a lower grade of civilization. The Russian forces were in two groups, a northern one on the eastern frontier of East Prussia, and a southern one facing the Austrians. Between them was a broad space over two hundred miles, with Warsaw in the centre, held by a screen. A wide movement from East Prussia south-east into Poland, aimed behind the Russian front, would probably have been most effective ; but the Austrians were so shaken that direct aid had to be sent to them, and Hindenburg's Ninth Army was moved south by train to their left flank. It then attacked the Russian right wing there, enveloped and turned it and forced it to retreat. The Germans with the Austrian First Army then pushed on towards Ivangorod and Warsaw. The Russians, who had got a

clue to the operations from the notebook of a fallen German officer, shifted troops, attacked in front and enveloped the German left flank with the Second Army. The Austrian First Army was driven back on the 26th of October, just as affairs were critical at Ypres. The Germans had to retreat. At 1 p.m. Hindenburg reported to the Supreme Command—the pessimistic tone seems to indicate the voice of Ludendorff :

“Austrians retreat on 27th from Ivangorod, German offensive over Piliza is therefore out of the question. The Ninth Army must also retire. The Eighth Army asked to send all available troops to Thorn. Sending of all formations present in the Homeland to Posen requested. In front of Ninth Army are 14 Russian corps, of which 4 or 5 extend beyond our left flank. Advance of these against German frontier cannot be prevented. Nothing to be expected of the Austrian Army. Our own Landwehr partly unreliable.”

As Commander-East, he extracted three divisions from the Eighth Army, which, already pushed back on the 2nd of November, had also to retreat.

Falkenhayn was not shaken in his determination to continue the offensive in the West. He replied :

“No formations available in the Homeland. Supreme Command leaves it to your judgment to throw the Ersatz formations of the local corps into the Eastern fortresses. The importance of providing the Eastern fortresses with garrisons will be clear to the commander of the Ninth Army. The 5th Cavalry Division leaves here in about three days by train, direction Posen. The maintenance of cordial relations with the Austrians of greatest political importance. As for the rest, instructions from here for measures in your theatre cannot be given, they are in good hands.”

On the following day Falkenhayn placed, “in round numbers, 40,000 trained men, without officers and with few N.C.O.’s,” at Hindenberg’s disposal, who used them half as reinforcements and half as fortress garrisons.

The Russians now advanced westwards on Silesia and Posen ; the attacks on Ypres failed to gain a victory. On the evening of the 3rd of November Falkenhayn had to decide what he would do. At this point the volume breaks off.

EXAMPLES OF WELLINGTON'S STRATEGY :

THE VITORIA CAMPAIGN, 1813

BY MAJOR-GENERAL SIR W. D. BIRD, K.B.E., C.B., C.M.G., D.S.O.

PART I

(With Two Maps)

MOST Englishmen probably think that the word Vitoria has some connection with the word victory. In fact it has none, for the word is a corruption of the Basque word Beturia, meaning a height or small isolated hill ; and it is on such a hill that the city stands amid a circle of mountains covered with pine or heather. Vitoria is also at the junction of several valleys and roads, a situation that gave it strategical importance, since the basis, not the object, of strategy is movement, to move or to prevent movement ; and movement is of course conditioned by the surface on, or element in, which motion takes place, by the means of progression, by the weights that are moved, and by the system of providing fuel ; and food is fuel for the human machine just as ammunition is fuel for weapons.

Strategy, then, is and must, so long as roads are used for movement, be largely influenced by the direction in which roads travel ; and as a preface to an account of Wellington's strategy in the Vitoria campaign it may be pointed out that, while the few made roads in Spain—some of them were in bad condition—focussed on Madrid, the exceptions were the road leading down the east coast of the Peninsula and the road from Salamanca to Seville, those of Portugal radiated from Lisbon ; and, generally speaking, the best Spanish roads did not go to Portugal. In theory, then, a French force standing round Madrid possessed the advantage of being able to strike blows in succession at Spanish forces advancing from the different provinces towards the capital, because these forces could not easily unite except when close to it. And in actual practice the lack of cohesion between the various Spanish groups during the Peninsular War and their particularist tendencies rendered cooperation

even more difficult between them. The same advantage of interior position was enjoyed by an army operating from Lisbon ; and owing to the direction taken by the roads, and although, as has been stated, the best of the Spanish roads did not lead to Portugal, this army could get round either flank of an army covering Madrid against attack from the west (Map 1).

It is fatally easy, however, to generalize in this way about the movements of armies, which are not effected with as little trouble as pins can be transferred from one part of a map to another ; and if the history of war is to be studied with profit the attempt should be made to realize the immense effort that the movements of armed forces involved and do still require. This may be partly understood as regards the Peninsular War when it is remembered that, in 1813, the weight carried by the infantryman was about 60 pounds, including 60 rounds of ball ammunition ; and that, since the roads or tracks, except the made ones, were either ankle or knee deep in mud, or were a mass of rough ridges covered with thick dust, marching was a great toil. Also that no fewer than 160 strong oxen, besides spare animals, were needed in 1813 to draw the reserve of heavy artillery, six 18-pounders (Portuguese) and their limbers, during the march to Vitoria.

The movements of troops, as has been stated, also depend on their transport, and owing to the local conditions the transport of Wellington's army was as cumbrous as the transport used by British forces until quite recently in expeditions over the Indian frontier ; when the head of the column was often already in the day's bivouack before the rearguard had left the last one. There were, we are told, about 10,000 public pack animals with Wellington's 80,000 troops in 1813, on which tools, blankets, ammunition, and generally a day's bread ration, were carried, and there were an even greater number of private horses, mules or donkeys, which were looked after by Portuguese or Spanish servants. Reserve ammunition for guns and infantry seems to have been transported in hired bullock wagons ; and bullock wagons were used for the carriage of biscuit, that is bread baked hard, with the troops. Supplies were in addition sent up in hired wagons to the front from the intermediate and advanced dépôts ; and they were brought to these from Lisbon, to which they were at first imported principally from the United States of America, and after war had broken out with them in 1812 from Brazil and Egypt. Slaughter cattle were usually driven with the troops. It appears that food was obtained locally by requisition so far as it existed and funds enabled it to be paid for, and stringent

orders were given that requisitions were to be paid for at once either in cash or by bills. When local supplies did not exist or had been exhausted rations were obtained from depôts. Up to 1813 the soldiers had done their cooking in heavy iron kettles, which were carried on the transport and in consequence often arrived in the bivouacs hours after the troops. But in the Vitoria campaign and subsequently light kettles of tin were issued, which were carried on the men. When on the march the troops either bivouacked or were in billets, and they were up to 1813 usually billeted when the army was stationary. But in that year and afterwards tents were conveyed with the troops, which certainly added to the comfort of the men although the size of the transport column was increased.

The British campaign of 1812 in the Peninsula had been undertaken before Napoleon started on his expedition to Russia, but when he was on the eve of doing so. And even then Wellington had decided to alter his strategy of wearing down the French, and to seek a pitched battle if it could be fought in favourable conditions. For it was thought that without a victory the French might never be driven from Spain, and in 1812 they were weaker than they had ever been before or were likely to be again if Napoleon were successful in Russia. Wellington's opportunity came at Salamanca; and the result of this victory was that, although the Allies, whose front was carried after the battle to Madrid and Burgos, were subsequently obliged to evacuate the first and were driven back from the second, the French had been forced to quit the whole of Southern Spain in order to concentrate against Wellington. At the beginning of 1813 their front ran, therefore, from Catalonia to Valencia and thence westwards in a big arc first round Madrid then to the northern coast. And, what was far more important than the gain of territory, owing to Wellington's success the Spanish guerrillas had been roused to very importunate activity against the French, particularly in Biscay.

At the end of 1812 Wellington had been made Commander-in-Chief of the Spanish armies, but this appointment rather increased than diminished his difficulties, for he was involved in direct responsibility for measures to assure cooperation, order, and organization, where there had been only incoherence and disorder. Friction with the Portuguese was still unending, and, as regards the British Government, his success had caused him to be consulted on every conceivable matter, military and political. And, amongst other worries, he was obliged, after the disastrous retreat of the French armies from Russia had raised high hopes that Napoleon's power would collapse, to resist proposals to transfer portions of the forces

in Spain and Portugal to Holland, to Germany and to Italy ; for it seems that the outlook of the politicians of that era, and perhaps the standpoint of the soldiers also, was exactly the same as in our Great War. And one reason for Wellington's resistance was that, as he had already written in the past, the Government

"cannot have this army in any part of the north of Europe, or in the Adriatic, in a state fit for service in less than six months after the resolution to alter its destination shall have passed the Cabinet."

Another reason was that the strength of the British forces in the Peninsula would so far have been reduced as again to paralyse their operations. And Wellington believed that the best policy for England was to continue to make her greatest effort in one area, Spain, and in doing so to give indirect but powerful assistance to the Russians and their allies, the Prussians and Swedes, in the struggle against Napoleon.

As soon as Napoleon's wonderful recovery of military power early in 1813 showed that a French withdrawal from Spain was not likely to take place, Wellington began to plan another campaign. At this time the forces under his command were standing as follows : On the Allied right a British, Italian, Spanish group 20,000 strong—the British and Italians had been sent to Spain in 1812—was under General Sir John Murray (who must not be confused with Sir George Murray, Wellington's chief of the staff) near Alicante ; and here a French force under Suchet had been defeated on the 21st of April at Castalla. The 1st Spanish Army, 8,000–10,000 strong, was practically isolated, being under Copons in Catalonia, where there were also bands of guerrillas ; the 2nd Spanish Army, 15,000–16,000 men, was under Elio in Murcia, and there were in Southern Aragon bands of guerrillas led by the Empecinado, Duran and others, the more important numbering 4,000–5,000 men each. In the right centre there was the 3rd Spanish Army, about 15,000 troops, under Del Parque, in the Sierra Morena ; behind this in Andalusia there was the Army of the Reserve, 14,000 men, and in these areas there were guerrillas also. A Spanish division of 5,000 troops was in Spanish Estremadura under Morillo. The right of the Anglo-Portuguese Army, 23,000 strong, commanded by General Hill, was at Coria, Plasencia, and Bejar, with Carlos de Espana's weak Spanish division behind the front ; the main body of the Anglo-Portuguese, 58,000 men, was in quarters extending from the Mondego to the Douro ; and Sanchez and his guerrillas worked on the border of Leon and Old Castile. In Old Castile (which extended to the coast at

Santander) and Galicia there was the 4th Spanish Army, about 25,000 men, at first under Castaños and then under Giron, and in Biscay and Navarre there were large bands of guerrillas, commanded by such men as Longa, Porlier, Mina, Mendizabel, and many small bands in addition.

At this period Wellington believed that the main French forces were disposed as follows : Suchet's Army of Arragon, about 30,000 men, was in Valencia, and there were about the same number of troops in Catalonia. Round Valladolid were the bulk of the armies of the Centre (Gazan), South (D'Erlon), and Portugal (Reille), each when concentrated, about 25,000 strong, but usually weakened by columns engaged in foraging or chasing guerrillas ; and in Madrid and to the south of it there seemed to be about 8,000-9,000 troops. About 40,000 men, the Army of the North (Clausel) were guarding the line of communication from about Burgos northwards, and holding the Biscayan ports against the guerrillas and the crews of the British warships that were operating off the northern coast of Spain.

As is likely to happen in every great war, Wellington's strategical problem was twofold : he had to consider how he could best help the cause of the Allies in Central Europe, where Austria was now half inclined to joint with the others ; but this assistance must be given with due regard to local conditions, that is with due regard to the security of the Anglo-Portuguese Army and to the maintenance of the resistance of the Spaniards.

The forces at Wellington's disposal amounted to about 8,000 Anglo-Sicilian troops, 81,000 Anglo-Portuguese with 102 guns, and 150,000 Spaniards ; a grand total of about 260,000, besides the petty guerrilla bands, but only a small proportion of the Spaniards could be used for any work other than minor operations in their own districts. So far as he was aware the French could still put into the field about 200,000 men, superior on the whole in quality to those of the Allies and better armed as regards artillery. But since the French were obliged to guard big areas, and must therefore probably spread out their troops so as to be ready both to meet attacks in many places by small numbers of guerrillas and also, for reasons of subsistence, concentration of force would almost certainly be slow—and it must be remembered that to concentrate prematurely, or without discrimination, merely because to concentrate is wise in principle, might be as fatal to the French as not to concentrate at all. It was also unlikely that the French would take the offensive in force in the Peninsula until the fortune of war had declared itself

in Central Europe, where Napoleon would soon be in the field ; and if so the initiative in Spain would be with the Allies, and they might be able to surprise the French by rapid collection of superior numbers of good troops in one area. In addition, the Allies might be able to economize their main forces by undertaking subordinate attacks that would tend to hold fast larger numbers of French. On the whole, then, Wellington might hope to bring superior force against the French wherever he decided to concentrate the better elements of his armies. And although it is true that he wrote, on the 25th of May, when the campaign had commenced, "after all I believe we are inferior to the enemy," as one of those who was at his headquarters then said of him : "Wellington sees double as to the number of blue uniforms and cannot see all the scarlet ; but I believe most men in his situation do this more or less."

In order to fulfil the condition of bringing material assistance towards the attainment of the principal allied objective Wellington, unless attacked, must take the offensive with his main army, and two policies might be adopted in doing so. He could either occupy Madrid with part of the force—it was now unlikely that his troops would be obliged to retire from it, as had happened in 1812—and then, according to circumstances, either attack the French or stand on the defensive ; or he could in the first instance, try to inflict a severe reverse on the French armies. And, as is always the case, there is much to be said in favour of each of these courses. As regards the former it was arguable that, in the political sense, the loss of Madrid would seriously prejudice Napoleon's reputation in Europe ; and from the more directly material point of view the Spaniards would be encouraged to make even greater efforts against the French, and the British would not irrevocably commit themselves until there were indications how the war in Germany was progressing. Further, so long as a big footing was held by the French in Spain, that is so long as they occupied Old Castile and Valencia, they would be obliged to employ large numbers of troops there, which would be of great assistance to the Allies in Central Europe. And if in consequence of this diversion of force the Allies were victorious, the evacuation of the Peninsula would follow as a matter of course. As to the other alternative it could be contended that a great victory would not only bring far more encouragement to the enemies of Napoleon, and to the Spaniards, than the occupation of Madrid, but might even serve to counteract the effect of French successes in Germany. And this would certainly take place if the French could definitely be driven from Spain and France itself menaced

with invasion ; and a threat of invasion of France would also hold fast at least as many French troops as would be needed for the occupation of the north-eastern half of Spain.

In problems such as this there is often some factor that turns the balance of advantage to one side or the other in the argument ; and in this problem there was such a factor, namely, the probability of gaining a decisive victory, which would depend on the respective situations of the armies and their leadership. Wellington could evidently not know all the secrets of the French high command, although his service of intelligence was good. But he was aware that the leaders of the French groups were not on good terms as a rule, and that, apart from this, cooperation was not easy owing to difficulties both as regards supplies and in maintaining communication in a very hostile country. He was also aware that the activity of the Spanish guerrillas in the north and north-west of Spain had already obliged the French to disseminate a portion of their forces, and that they encountered great obstacles, owing to the attitude of the Spaniards, in obtaining information as to the movements of the British, Portuguese, and Spanish armies. These certainly were factors favouring the attainment of success by the Allies, but there was an even more important one ; for it seems, according to documents quoted in the Supplementary Despatches, that Wellington had received a description of the character of King Joseph (who was now commander-in-chief of the French armies in the Peninsula, although Napoleon still sent direct orders to the commanders of the groups), and of that of Marshal Jourdan, the chief of his staff, which was not flattering. In this description it was stated that Joseph was a good man, but only good owing to " a too great facility of temper and total absence of resolution " ; and that Jourdan was " a man of weak character and little or no military talents." These, then, were men with whom liberties could and must be taken, and against whom a great success might be gained, and, confident in himself and in his Army, Wellington determined to adopt the daring policy of maintaining his objective by means of forcing on a fight with the main French armies.

Leakage of plans through his officers, even those of his headquarters staff, into the press had been so constant during the war in the Peninsula that Wellington had developed an exaggerated and at times harmful secrecy ; but this secretiveness was both essential and effective on this occasion for the purpose of outwitting the enemy. The preparations for the campaign were, therefore, quietly carried on during the winter and spring, such as recon-

naissance of roads, the bringing up of a bridging train of 35 boats, the assembly of ships carrying supplies and ordnance. It was not until about the middle of April that instructions were issued by Wellington regarding the movements of the troops, and information as regards the main operation given to General Graham, one of his commanders, and only to him ; and it was not until a month later, that is just before the Anglo-Portuguese Army was about to march, that the Secretary of State for War in England was at last told what was intended.

All Britain's campaigns overseas have up to the present been founded on her naval superiority, much of her land strategy has in the past rested on the mobility, the strategic liberty of action, conferred by sea power on a nation whose frontiers are not coterminous with those of formidable military states ; and Wellington proposed to use this advantage to the full in combination with other strategical measures. About the middle of April, therefore, he sent orders that the Anglo-Sicilian force under Murray was, with a group of Spaniards, to attack the communications with France of the French troops on the East Coast, by sailing from Alicante in order to operate (in conjunction with the Navy) against the fortress of Tarragona. As soon as the French began to bring troops from the south to oppose this landing such of their forces as were still near Valencia, as well as those northwards of it, were to be assailed both by the 2nd and 3rd Spanish Armies and by the guerrillas, who were to stop communication between these forces and King Joseph. Murray was also told that he was not to move until the 3rd Army arrived, and that the immediate objectives of the allied troops on the East Coast were to get a footing in Catalonia and open communication with the 1st Spanish Army ; to obtain possession of the open parts of the province of Valencia ; and to oblige the French to leave the lower Ebro. Wellington, however, added a warning, which seems to have upset Murray but was apparently intended for the Spaniards, that there must be no defeat, and that he would forgive anything "excepting that one of the corps should be beaten and dispersed." In addition to these operations on the East Coast a request had been made by Wellington as early as February that certain heavy ordnance and stores, which were due from England, should be sent to Corunna and remain at his disposal in the ships ; and subsequently orders had been given that a number of vessels loaded with biscuit and flour, which had come overseas to Corunna, should remain there, so that the British should possess a floating base ready to be moved where required. Wellington had also pointed out how important the

power of freely using the waters round the coast of Portugal and Spain was to his forces—Britain was now at war with the United States of America, and both American and French privateers had been giving trouble ; and he asked that the whole area off the coast of the Peninsula should be placed under one naval officer, in order to “simplify arrangements for convoys and for naval operations in concert with the Army in the ensuing campaign.”

The French line of defence along the Douro, where an advance northwards by Wellington’s Anglo-Portuguese Army would probably first meet with strong resistance, was formidable ; for the river both runs between cliffs and rocky hills and can in consequence only be reached in a few places, and most of the bridges in Spanish territory had been broken and entrenchments had been made commanding the fords. It was necessary, therefore, to avoid if possible a direct attack on this line, and as a result Wellington’s plan for the main operation, as communicated to the Secretary for War, was as follows :

“I propose . . . to commence our operations by turning the enemy’s positions on the Douro by passing the left of our army over the river within the Portuguese frontier. . . . I . . . propose to strengthen our right and move with it myself across the Tormes, and establish a bridge on the Douro below Zamora. The two wings of the army will thus be connected, and the enemy’s position on the Douro will be turned. The 4th Spanish Army of Galicia (under Giron) will be on the Esla on the left of our army at the same time that our army will be on the river. Having turned the enemy’s position on the Douro, and established our communication across it, our next operation will depend on circumstances.”

As a supplement to these operations rumours and reports were also spread of a movement by the Allies up the Tagus. Further, demonstrations were to be made by both Spanish guerrillas and Regulars in La Mancha and Estremadura, which would help to induce the belief that an advance on Madrid was in contemplation. Such, then, were Wellington’s intentions, and he went on to say to the Secretary of State, “I cannot have a better opportunity of trying the fate of a battle, which, if the enemy should be unsuccessful, must oblige him to withdraw entirely.”

The concentration and forward movement of the troops under Wellington’s immediate command began between the 13th and 15th of May (Map 2), and at the same time the Spanish Army of the Reserve was ordered first to advance on Almaraz and then on Valladolid, because strong resistance was expected by the French. By the 25th of May the right wing, 25,000 men, under the Commander-in-Chief in person, was nearing Salamanca ; Morillo’s Spanish Division,

which was on the right, being close to Alba de Tormes, the 2nd Division on its left, then Silveira's Portuguese Division, the Light Division, Grant's, Long's, and Fane's Cavalry Brigades, and lastly, Sanchez's Spanish Guerrilla Lancers wide out on the left flank ; but Espana's Spanish Division was still near Ciudad Rodrigo. The larger group, 55,000 men under Graham, was standing approximately as follows : the 4th, 6th, and 7th Divisions, and V. Alten's Cavalry Brigade, near Miranda de Douro ; the 3rd and 5th Divisions, Bradford's Portuguese Brigade, and D'Urban's and Bock's Cavalry Brigades were in the centre ; and the 1st Division and Pack's Portuguese Brigade, and Anson's and Ponsonby's Cavalry Brigades, were near Braganza.*

On the 26th of May the troops of the Anglo-Portuguese right were engaged with a French division at Salamanca, which was driven back and lost a few men, and this division then retired eastwards and away from another division reported to be on the Douro at Zamora and Toro. The enemy's attention having been drawn towards Salamanca the right now halted. And the reason, as Wellington said in instructions to General Hill who was to command the group, was that its junction with Graham's force might be assured, and that it might keep possession of Salamanca and the line of communication with Ciudad Rodrigo until touch with Graham had been established. As regards the enemy it was reported that part of the Army of the Centre had reached Valladolid, and Wellington calculated that, on the 29th or 30th, four divisions † of the Army of the South would have concentrated at Medina del Campo, and that there would still be a division at Zamora and Toro and one in Madrid. Hill was told to attack the advanced troops of the French if he thought this advisable. Otherwise he was to concentrate on the road between Salamanca and Zamora, that is to move towards the left wing. Since Graham's group would be crossing the Esla on the 31st, Wellington thought, however, that the French would probably not run the risk of disaster to their left, which would be involved in an advance in strength as far westwards as Salamanca against Hill.

On the 29th Wellington rode off to join the troops under Graham who were now to undertake the difficult task of crossing the Esla, for it was believed that the passage might be disputed by the enemy. There was, however, no opposition, and the greater part of the left wing of the Anglo-Portuguese force passed over the river on the 31st, the cavalry by fords, and not without casualties for the water was

* The strength of a division varied from 5,000 to 7,000, that of an independent infantry brigade was about 2,000, that of a cavalry brigade from 400 to 1200.

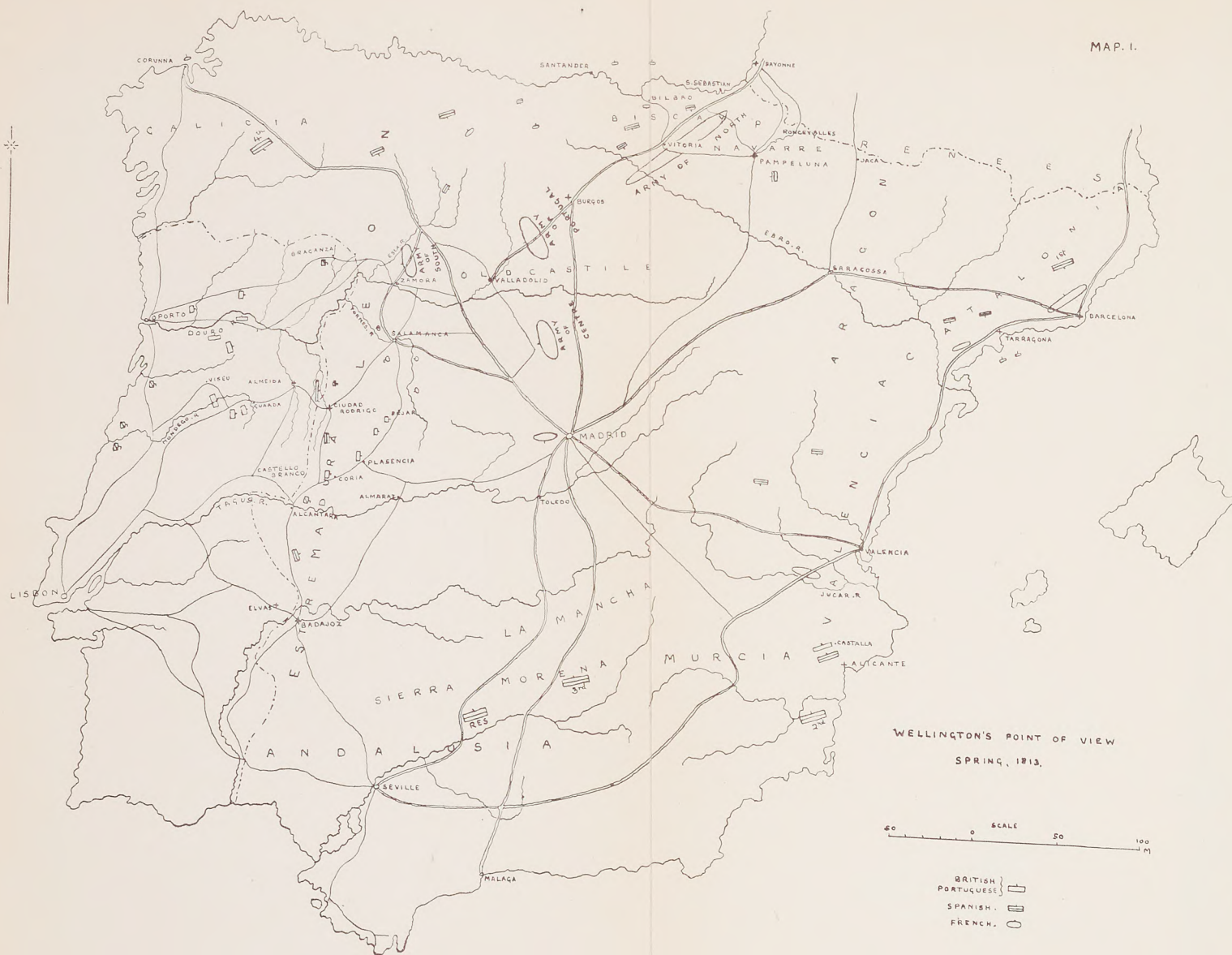
† The strength of a French division was from about 5,000-7,500 men.

high, the infantry by the pontoon bridge. The French forces which were watching the Esla and Douro had meanwhile fallen back to Toro, where there was apparently an infantry division and a cavalry brigade. The French troops on the southern side of the Douro had at the same time concentrated at Nava del Rey, but Wellington was not disturbed at this, for he thought that the advance of his right would soon oblige them to move to the north of the river. News was also obtained that the French garrison was on the 22nd of May still at Madrid, and that on the same day detachments were watching the line of the Tagus to the south of the capital. It seemed, therefore, to the Allies that the enemy had been surprised and would not be able to bring the whole of the forces that had been near the Douro together for some time.

In order to take advantage of this situation and to win the passage over the Douro for the rest of his Army, Wellington now marched the troops of the left wing rapidly over a sandy plain towards Toro and the area to the north of it, which were reached on the 2nd of June. And touch with the French, who had fallen back as Wellington expected, was then established ten miles to the north-east of Toro and a skirmish took place at Morales. Hill in the interval had advanced on the 2nd, and on the next day his troops began to cross the Douro at Toro by the bridge, which was repaired, and by a ford. On the other flank the Galicians under Giron, only 10,000 strong, had now arrived at Villalpando.

Wellington, who we are told looked anxious at this time, as well he might for even the best balanced of men are not machines, had therefore already carried out with unexpected ease the first and most difficult phase of his plan, for he had both crossed the wide, steep-banked Douro and united his army. As regards the immediate future, it seems that he expected that the French would fight a battle for Valladolid, an important road centre, for if this place were not held concentration of their armies could not easily be made to the south of Burgos. If, however, the enemy did fight it would, Wellington thought, probably be with only part of their forces, and the chances were that they would be defeated. But if the Allies were beaten their strategical situation would still be good, for the French would not be strong enough to inflict a disastrous reverse, and the Allies would therefore at worst fall back along the northern bank of the Douro towards the Esla. They could then cross the Douro on their bridge and fight again near Ciudad Rodrigo, since the French would not have been able to move in force beyond that fortress.

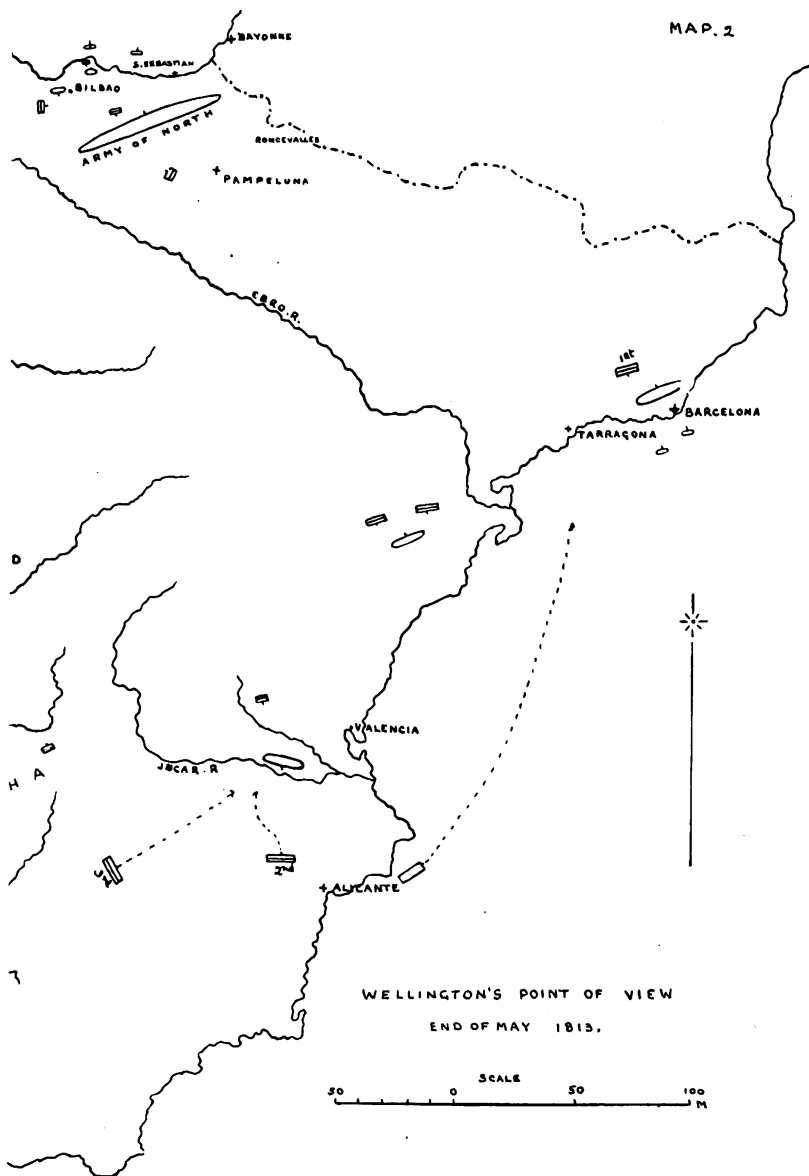
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THE GALLIPOLI HISTORY

BY LIEUT.-COLONEL F. CUNLIFFE-OWEN, C.M.G.

THE appearance of Vol. I of the "Official History" of the Dardanelles Campaign, giving as it were the authoritative voice after previous discursive writings upon these operations, is to be welcomed. Like all the official histories, the compilation is an admirable one; my object in writing the following remarks is not to criticize the history in any way, but simply to draw attention to certain facts, bearing upon events prior to the commencement of operations and which I have refrained from mentioning until the "Official History" appeared.

A great deal has been made at various times of the so-called lack of maps and general information regarding the Peninsula, together with want of plans for attack.

Now to consider this from the early pre-war time. I myself was in charge of the intelligence sub-section at the War Office, covering the Near and some of the Middle East, from March, 1910, to October, 1912. Our instructions then, in so far as Turkey was concerned, were to envisage possibilities of offence against Egypt, operations in the Syrian theatre, at the head of the Persian Gulf, and in the Red Sea. For this purpose comprehensive military reports were drawn up, complete with maps, etc., and containing the results of special reconnaissances, for Syria and the Egyptian frontier, and for Mesopotamia. The latter report I know was eventually used for the operations and as a basis for further reports after the war began.

I remember one highly placed official remarking to me, "You will see that as Belgium was once the cockpit of Europe, so Syria will be the cockpit of the Near East."

It is very remarkable that, when the Alexandretta talk was on the *tapis*, a staff officer at Gallipoli G.H.Q. said to me that there was nothing whatever about Alexandretta on record at the War Office. I replied that not only was there everything about this in

the Syrian military report, but that I had an intimate recollection of certain War Office minutes on this particular subject, dealt with and commented upon under the initials of the then C.I.G.S. I personally, when at the War Office, had made rather a point of Alexandretta being a vital spot, and I cannot agree with the statement attributed to Lord Kitchener that it had been tried and failed.

As I have said, the Straits themselves were not envisaged in our instructions as a likely war theatre, but even so they were not neglected, because two reconnaissances were made somewhere about 1911 around Enos, Bulair and Maidos, and the results of these, together with reports from our Vice-Consuls in the Gallipoli area, were on record at the War Office when I left.

The remarks therefore often quoted as to nobody knowing whether there were road or water facilities on the Peninsula or what were the climatic conditions, are quite ridiculous, as was also the project of taking Rolls-Royce cars there !! *

Let us now turn to the later pre-war period. After leaving the War Office, I spent a year as military *attaché* with the Greek Forces during the Balkan wars, and then, at the end of 1913, succeeded to the post of military *attaché* at Constantinople.

In the eight months prior to the mutterings of war my attention was mainly directed to gauging the value and organization of the Turkish Army under its second German handling, and for this purpose I travelled about to the various larger military centres. About the spring of 1914, however, I turned for awhile to the Straits on account of the reorganization of the defences there and of the armaments under German direction. I personally visited Chanak, etc., and sent home the results of my observations together with those of our very capable vice-consul at Chanak.

From this time onwards a stream of information went home to the War Office, information dealing with new armaments arriving or projected, alterations of sites of batteries and mine fields, and ancillary matters pertaining thereto.†

When the Great War actually burst I doubt whether any of us contemplated a major operation against the Dardanelles. Of course

* Apart from official information actually on record at the War Office, hundreds of Greek refugees, inhabitants of the Peninsula, were available when the operations were definitely decided upon. The Peninsula was not an unexplored "savage" country.

† The same staff officer I have before alluded to asked me why there was nothing on record about the Turkish large auxiliary fleet (in reality German) of transports and other craft. I replied that a complete list of these craft had been made by my own hand with all details, in conjunction with the British harbour master. This was on a par with many other such incidents at the time.

we all knew in Constantinople that the Turks at their own and at the German time would come in against us, and I personally was not one of those who thought this a disaster. I failed to see, with Turkey even neutral, how we could ever have solved the many troublesome questions connected with Egypt, the Baghdad rail, the Persian Gulf and the religious influence wielded over our ill-informed Indian brethren.

With Turkey hostile I did not conceive that we should allow ourselves to be drawn for the moment into any major operations. But, if it ever came to a big business and such a project as forcing the Straits, my opinion was that we should most certainly do this in conjunction with the Greeks. From my former conversations with the Greek General Staff, I knew that all their projects were carefully and competently drawn up, and as nearly the whole population of the Peninsula was Greek, their information was of the best. That we could have had the help of the Greeks in the early days is undoubted. When we could have had them we did not take them, and when we wanted them, we could not get them. Apart from the much-worn controversy about King Constantine, I am aware that the two obstacles to the acceptance of Greek cooperation were: (1) the hope of gaining Bulgaria or at any rate of "localizing" the war in the Balkan area; and (2) the Russian hostility to Greek aspirations. But with regard to (1), most Balkan observers on the spot realized where King Ferdinand's aims lay, and as for the "localizing" policy, it was better to grab a certainty. As for (2), many war arrangements about future spoils took, as was proved, a long time to come home to roost, and often never came home to roost at all, and as it turns out we could have entered into an arrangement with Greece with far less embarrassing results than in the case of the Sykes-Picot and other such agreements made by itinerant travellers from time to time.

However, little notice appears to have been taken of what I reported from Constantinople, and from Athens, where I subsequently repaired for a few days when we left Turkey on the 1st of November. I was left severely to myself; no hint was given as to policy nor as to any discussions which might have taken, or be taking, place. On my own initiative I travelled from Athens to Egypt, but was then called to England to train new armies. On my way I was passed by a temporary officer going to Egypt to run the Turkish intelligence; he wired to me frantically to ask for some information about the Turks!

Busily engaged in training new armies, whispers of Eastern

Mediterranean projects reached me, and I ventured to submit that I might be of some service in that connection, but not a bit of it—no attention was paid. And so we get the statement as to Sir Ian Hamilton going to the Levant with a scratch staff, "one or two of them put on uniform for the first time in their lives ; leggings awry, spurs upside down, belts over shoulder straps."

Whose the omission was I do not know, but had some one in authority looked around, there were two experienced officers available (my predecessor at Constantinople and the late Vice-Consul at Adrianople) besides myself, who not only knew all about how to clothe themselves, but had the necessary local knowledge at their fingers' ends. However, this rather fits in with an observation made to me later at Mudros : "we do not want any more experts." Now the Germans proceeded in these matters upon totally different lines. Each individual, resident or employed in the East in peace time (and there were many specially located at this period), had their war job marked down, their job where they knew things and could be most useful to the common end. They then carried out their job automatically.

I do not profess in this article to touch upon the actual operations when they were embarked upon, but I do say that many preliminary misunderstandings and difficulties could have been mitigated or avoided altogether, had the authorities responsible consulted or utilized even on simple matters, those most recently on the actual spot.

As regards the general policy : one great blot to my mind was in not utilizing the Greeks. Other aspects on such a controversial point as the attack upon the Straits and if, when, or how, such an attack should be made, could fill pages of discussion.

For myself I will just say one thing, viz. that I am still a confirmed "Easterner," and the importance to be attributed to the Eastern operations is insisted upon by General Ludendorff and other German authorities.

Whatever Mr. Lloyd George's sins are at the present or at any time, his memorandum quoted in the History and other remarks of his are well worth observation, and he had the perception to look around and try other methods than the hard-and-fast battering-ram business.

I should mention that about the time of the successes in Mesopotamia and Palestine I was on an official mission in the Middle East. Most people have little idea of how our prestige mounted with the captures of Baghdad and Jerusalem, enterprises which

Mr. Lloyd George insisted upon, but at which many people scoffed. Here were at any rate tangible results. "Prestige in the East" may only be counted as of local importance, and nothing towards winning the war. But, to quote my German authorities again, the ultimate result in the Balkan area was a prime factor in bringing the war to a close in the autumn of 1918.

THE TERRITORIAL PROBLEM

BY BREVET-COLONEL G. R. CODRINGTON, D.S.O., O.B.E.,
The Leicestershire Yeomanry

A RECENT article in the *Army Quarterly* by Lieut.-Colonel H. E. Franklyn, D.S.O., M.C.,* deals with an important problem, and apart from this the fact of the article being written by Colonel Franklyn makes it worthy of attention, and calls for reply.

There is much in the article which is sound and constructive, but there seems also an appreciable amount which is destructive, and much that seems to be based on false premises and on an imperfect appreciation of the Territorial Army as it is to-day.

Colonel Franklyn asks the question: should Territorial units be trained as units or as cadres of instructors? And, although he admits serious drawbacks to the latter suggestion, he comes to the conclusion that "this proposal probably forms the best alternative to the Territorial Army as it exists to-day." This accepts, on argument that strikes one as by no means conclusive, that some "alternative to the Territorial Army as it exists to-day" is required. It may be that rather than an "alternative," what is required is a greater perfection of the present system. We will come back to this point later.

The article then deals with what are described as two schools of thought that "broadly speaking" exist in the Territorial Army to-day: (i) the "spade and bucket school," and (ii) the "serious soldiering school"; and then the author goes on to paint what many will consider to be a caricature of the policy of many Territorial commanding officers in the training of their units, out of which he makes a case for the virtual elimination of long-range musketry, and for the training of regimental officers by the brigade commanders.

One of the most interesting portions of the article is the last paragraph in which it is admitted (what so many Regular officers

* See "The Territorial Problem," by Brevet Lieut.-Colonel H. E. Franklyn, D.S.O., M.C., *Army Quarterly*, April, 1929.

do not realize) that there is among Regular officers generally a lamentable ignorance of the Territorial Army, its conditions, its difficulties, and the methods by which it must be worked. But in the same breath comes the condemnation of the "majority of senior Territorial officers" as not being experts on their own problems, and the assertion that any Regular officer, so long as he is not "indifferent," is suitable for service with the Territorial Army provided he works to a sound policy which is universally understood and adopted—which policy apparently is to be implanted on the non-expert Territorial senior officers by the Regular.

Let us now examine some of this in greater detail, and from another point of view.

The problem before the Territorial Army to-day is how to rise to, and to maintain itself at, the extremely high level of professional efficiency which present-day requirements demand, and before that problem can be properly considered there are certain factors which should be accepted, and which, at any rate in the experience of the writer, are more often than not a complete surprise to, or at best are only partially realized by, Regular officers.

(i) The composition of the Territorial Army is fundamentally different from that of the Regular Army. In the latter all units, broadly speaking, are on equal terms and can train on similar lines. The expression "a unit" has but one constant meaning, and wherever the unit happens to be quartered, the unit can be dealt with as a standard unit, and a general policy whether of recruitment or training, can be applied.

In the Territorial Army this is not so, and this is one of the points which so many Regular officers often fail to realize. There are, in general terms, three distinct kinds of unit the method of whose recruitment, inter-camp training, annual training and administration, all vary.

First there is the concentrated town unit. Through being most in the public eye in London this is often and quite erroneously taken as a type of the whole, a fact which is evident from the perspective of many of the orders and regulations that are issued for general guidance. Such units are concentrated, with one permanent headquarters, with their officers and men on the spot. Their individual members, being mainly isolated individuals with no particular connection with each other, find a common meeting ground at their headquarters, and it is this which has given rise to what may be described as the social side of the Territorial Army. They have often a permanent officers' mess with weekly or monthly

dinners, they have unit sports teams, and so on. Such units obviously must go away somewhere to do their training.

Then, secondly, there is the provincial unit, utterly different in composition, facing different problems which need different solutions. Some units in provincial towns can be placed more or less in the first category, but the majority of the provincial units are essentially scattered. They only meet as a unit at the annual training in camp. Their officers, like the men, are scattered, the "social side" has little or no appeal nor is there the same opportunity or necessity for it, for the man's natural outlet in that respect is his village team and he will not come in twenty or more miles for his "social attractions" or to play football. The constituent members, also, are usually not isolated individuals whose sole thing in common is membership of the same unit as in the case of the first category, but they are little family groups who join together from the same village.

The "permanent mess and club" idea obviously does not apply here and the headquarters consists solely of an orderly room, a store and a drill station for the headquarters *personnel*.

Then there is the third category, by far the smallest, but by no means the least efficient and certainly to be considered in any survey of the conditions of the Territorial Army as a whole. This consists of units like The Lovat Scouts and, in fact, most of the Scottish units which are made up not even of little sections in villages, but of isolated individuals living really far apart.

Not only does the average Regular officer often fail to realize how dissimilar are the conditions which different units of the Territorial Army have to face, but it is really pathetic to see the extent to which attempts are made to legislate for the whole Territorial Army as if it all fell into the first category (e.g. T. A. Regulations 264 and 269, which lay down that meetings of the officers' and sergeants' messes shall be held quarterly).

(ii) Who are the constituent individuals that make up the Territorial Army, and how do they compare with those that make up the Regular Army? Colonel Franklyn states "the two Armies are aiming at different objects, and the same system of training cannot be right for both." The difference is far deeper than that. They are aiming at the same object, namely the highest possible degree of military efficiency, and the difference is not one of object but of material.

The Territorial Army is made up entirely of enthusiasts plying their chosen hobby—otherwise they would not be there. The

Regular Army is made up of men who have embarked on a profession and who therefore have all their time before them in which to learn and study.

The point which causes most surprise to Regular officers on their first intimate acquaintance with Territorial units is how much progress is achieved with so little instruction compared with what is achieved in Regular units, and the reason is simply in the standard of keenness and thirst for instruction which they find.

Having thus adjusted the perspective regarding the question of what we mean when we speak with such ease of the "Territorial Army" as one whole, let us consider further the application of Colonel Franklyn's suggestions.

First, then, the question of training cadres of instructors as against training units as such.

The training of cadres of instructors pre-supposes the limiting of instruction to a large extent to the officers and non-commissioned officers. Colonel Franklyn says "a large percentage . . . of the men in the ranks of the Territorial Army to-day would never make non-commissioned officers or specialists under any circumstances. Time spent on promoting the individual efficiency of these men is so much time wasted." To waste time is never profitable, and therefore let us visualize the training of "these men" dropped. What happens next? Again, the remedy is designed solely for the idea that all units in the Territorial Army are concentrated. To any one who has had practical experience of doing the job the idea of confining the training to the non-commissioned officers and selected men is grotesque. These men are scattered over large areas, and have problems of employment and locomotion which do not make things any easier.

Earlier in his article Colonel Franklyn admits that the best way to teach leadership is to give practical experience in leading. That teaching will increase in value with the degree of excellence of the led, and the best way to teach a young leader is to give him a really good and well-trained team to lead. By his own argument, therefore, it seems that the idea of training leaders only would fail, and, when the fact of geographical dispersion is borne in mind the proposition that the Territorial Army should train cadres only falls to the ground.

Let us accept, then, that the object to be aimed at is, and must remain, the production of a unit—a skeleton unit if you like—in as high a state of efficiency as the limited opportunities allow.

Then we come to the "spade and bucket school" versus the

“serious soldiering school.” Colonel Franklyn suggests that the “spade and bucket school,” as he somewhat contemptuously calls it, pre-supposes that all training must be dull and that therefore spades and buckets become necessary as counter attractions—the jam round the pill. This is not how or why that school has arisen. The mere fact that the seaside policy has prompted an officer of Colonel Franklyn’s experience to satirize it as he does, shows that that policy has done harm rather than good, but in fairness it must be admitted that his description of the policy is entirely contrary to what is intended.

The protagonists of the seaside policy urge seaside camps not as an antidote to training which is necessarily dull, but to compensate in some measure for the fact that many men who are keen enough to join the Territorial Army and go to camp have to make that their annual holiday, being unable to get away twice from their civil occupation. Commanding officers of this school will be among the first (and their men themselves second only to their commanding officers) to require that training facilities are the first essential, and, if these facilities can be combined with the seaside for the recreational or off-duty hours, then so much the better.

Although this is what is intended, it must be admitted that the intention has largely been misunderstood, and on balance probably more harm than good has been done by the seaside policy because it has had the effect of cheapening the Territorial Army, and, by means of bad posters and other forms of publicity, the King’s Army has been interpreted by some as merely a cheap form of holiday club. It is fairer first to regard the whole as the “serious soldiering school,” and then to realize that there are some units whose local conditions are such that material advantage can sometimes be derived from “spades and buckets” if, but only if, such can be obtained with really good training facilities.

While many will agree that much good work can be done by collecting men by *char-à-banc*, there are probably few, who really know, who will accept Colonel Franklyn’s “painful memories” of “large and dimly lit drill halls” as a true representation of what goes on there. Disappointments and difficulties there are of course, and not the least of these is in the matter of finance for *char-à-bancs*; but modern drill halls are well found and well equipped, and productive of really good work, which is hardly justly described as “precious drills frittered away.”

What is the answer to all this? The problem before the Territorial Army to-day, as has already been stated, is to rise to, and

maintain itself at, the extremely high level of efficiency that present-day requirements demand, and the following constructive suggestions are put forward towards the attainment of this object :

(i) Let it be recognized by the powers that be, and by Regular officers generally, that the Territorial Army is a complex whole, not cast in one mould, but made up of all sorts of units each with conditions and problems that need special study and special handling. Let it be granted too, that those who are giving, and in many cases for years have given, of their best to tackle these problems, are *prima facie* far better qualified to solve them than are Regular officers who have never had to tackle a similar problem. More up-to-date in modern technical developments the Regular officer may be and should be, but this fact does not *ipso facto* prove that the Regular, because he is a Regular, knows best how to handle, administer and train a Territorial unit.

(ii) Everything possible should be done that can be done to blend the Regular Army and the Territorial Army. Much, as Colonel Franklyn rightly points out, is done already by officers commanding regiments and depôts, but there is ample scope for more in this direction. Why, for instance, must Territorial battalions be designated by a " T " worn on the shoulder title or on the officer's collar ? If a Territorial soldier can become so good that he can be mistaken for a Regular, all honour to him.

(iii) During the course of his professional training for promotion every Regular officer should be attached to a Territorial unit in order that he may learn what is being done and how it is done ; that he may appreciate how an army is maintained in a high state of discipline solely by a common enthusiasm and leadership and with no enforceable law behind it.

The result of this would be two-fold—fuller appreciation by the Regular Army in general of what the Territorial Army achieves, and of the enormous amount of extra work over and above the obligatory amount of drills that is put in by the Territorial soldier, and also, when his turn comes to go out as a Territorial adjutant the Regular officer will have a better idea of what is required of him and of how he must set about his job. At present too often he has to learn this during his first year as adjutant, and is always amazed at what he finds.

(iv) A direct result of (ii) and (iii) will be that Regular commanding officers will make it a point of professional honour that only picked instructors are sent from their units to the Territorial Army as permanent staff instructors.

(v) All men, and soldiers are no exception, are helped by encouragement even when only a little has been achieved. None of us pretends to be perfect, and all are out to pick the brains of Regular officers on every possible occasion, but much still can be done officially, by individual Regular soldiers, and by the country at large, by giving more credit for the amazing amount that is achieved by the Territorial Army in spite of all its difficulties, rather than by pouring limelight (and sometimes still compassion) on its imperfections.

(vi) Given the enactment of the above five suggestions, let officers commanding Territorial units then concentrate on training their units as units—for thus they are designed—and by so doing they will at the same time be training leaders in anticipation of the time when they will give birth to other units on mobilization.

One further suggestion may be made. A well-qualified Regular officer recommends that in order to get the best practical results from the Territorial Army it is necessary to remodel more or less the system on which that Army is now worked. The suggestion (i) above could well be carried further. Whatever alteration of system be desired—even were the case for alteration conclusively proved—it would still depend on Territorial officers for its execution.

It would be a very sound thing were there constituted at the War Office a Territorial Committee on the lines of the old Militia Committee, not of course in permanent session but called together two or three times a year, consisting of senior Territorial officers actually doing the job and specially recommended as having shown themselves capable of doing their job successfully. The powers that be would be able to summon this committee and to say to it: “we want to make such and such a change, we want to achieve such and such an object, but we see certain difficulties (e.g. distances, employers, time available, finance); you are the people who have the experience of actually solving these problems each in your own type of unit (concentrated, scattered and dispersed), and you are the people who will have to carry it out. What do you think is the best practical method of producing the result we wish to have produced?”

Such a committee would cost nothing beyond travelling expenses, and it would provide a means of consideration of matters from the severely practical aspect before they were initiated, so long as its membership consisted of those who have shown themselves successful in solving the difficulties of different localities and arms, and were

recent in their experience, e.g. senior commanding officers or Territorial officers commanding brigades or recommended for such commands.

The Central Council of County Associations is not a suitable body for the purpose, for to be really effective such a committee should consist of those actually producing units, that is the commanding officers themselves or at least those who have just finished their command.

THE SOVIET RED ARMY

BY ALEXANDER SMIRNOFF

SOME fifty years ago the eminent Russian military writer, Phadyeff, when criticizing some change that was to be effected in the organization of the Russian Army, wrote this interesting phrase, little imagining that it would be actually realized in so comparatively short a space of time : " We have heard about the emancipation of labour, of women, even of children, but we hear for the first time about the emancipation of the Army." Yet, this emancipation actually took place in March, 1917, when Monsieur Gutchkoff, War Minister of the Provisional Government, with a stroke of his pen allowed the rank and file to elect their officers—a measure which wrought havoc in the Russian Army and eventually paved the way to Communism. With the advent of the Red *régime* in November, 1917, there was no organized military force in Russia, and in order to stem the anti-Bolshevik risings, which threatened its very existence, Lenin's Government decided to resort to voluntary enlistment, a plan which very quickly was put aside in view of ill-success, and conscription was enforced which was ruthlessly carried out by the official commissars. This law has remained in full force up to the present time and there is no sign that it will be relaxed. In fact, its enforcement has become considerably stricter with the passage of time, a sufficient proof of the Soviet Government's firm resolve to maintain a huge standing army with ample reserves behind it. Before giving details of the Red Army's steady growth during recent years, it would appear advisable to deal with the organization of the fighting forces and to explain the system of higher military education which is given to its leaders.

" The great revolution of November, 1917, totally destroyed our old Army,"* and it became at once apparent that drastic steps would be needed to turn out future leaders. For this purpose a Military Academy was opened in Ekaterinburg in May, 1918, which was transferred to Moscow in October of the same year. In December its work began in earnest with an eight months' course of studies, time not allowing for a longer period of tuition in view of the dearth

* See " The Red Army," *Journal of the Military Academy*, p. 31.

of officers.* Such were the difficulties of finding efficient lecturers that the Soviet authorities were often obliged to engage former officers of the old *régime* to become professors. These men naturally brought back many pre-war tendencies, which once again began to influence the new forces. In addition it should be noted that "the proletarian Regular Red Army was obliged to assimilate from the old Army forms of military discipline."† Nevertheless, when these lectures were initiated in Moscow, at least 60 per cent.‡ of the students of the Academy were Communists and their influence was not long in bearing abundant fruit, for from the first the Communists took charge of affairs. They decided that communistic teachings should be uppermost in their everyday life and their object was to instil their political principles into the minds of their fellow students who did not belong to the Communist Party.

To achieve their purpose they formed a political group which at first numbered about 150 members.§ In 1919 the number of Communists had risen to seventy per cent. of the College, the majority of the new members coming from the middle-class, and the Official Academic Journal of the period contained this triumphant phrase: "The Military Academy is in our workers' hands."||

In October, 1920, the Government decided to give a special three months' course of lectures with the object of instilling the teachings of Karl Marx still more firmly into the minds of officers. A drastic inquiry into the political opinions of officers was also held periodically and any officer who appeared at all lukewarm in his enthusiasm for Communism was summarily ejected from the Army.¶ Perhaps as a result of this purging process a shortage of officers was still felt and the Government was obliged to utilize the services of the old *régime* officers, mostly of colonels and generals. Even commissars were frequently drafted into the Army as officers.

The Soviet authorities, being well aware that they could not place absolute reliance on the fidelity of many of the officers, instituted in the early days of the Red Army a network of espionage over their work, and indeed over their every movement. But even this close supervision was not deemed sufficiently effective, and, early in 1921, at a conference held in Moscow, at which seventy-five of the so-called liaison officers were present, it was decided that their duty lay in

* In December, 1919, the course was extended to three years and remains the same to-day.

† See T. J. Guseff, "Lessons of the Civil War," p. 20.

‡ See "Two Years of the Red Army," p. 31.

§ *Ibid.* p. 14.

|| See "Red Army," *Journal of Military Academy*, p. 14.

¶ See "Red Army," p. 21.

keeping continually together the Red Army with the Red workers in order that the Army should not become a caste of its own, cut off from the new socialistic society.* It was further decided that it was necessary from time to time to hold meetings for the purpose of persuading non-party listeners to join in the work, although it was stated that it was difficult to make them take up political activities.† The liaison service at this period was not viewed enthusiastically by the Military Academy, and its course of studies was severely criticized at this conference, the complaint against the Academy being that its students were still influenced by the methods of the old *régime*.‡ The result of deliberations of the Conference was that the liaison branch was constituted into a special service which was destined to have a far-reaching influence on the fighting forces. A special task assigned to this service was to observe fellow-travellers in railway carriages and to gain information in towns to which its members were sent on flying visits.§ They were instructed to draw up reports on everything they saw or heard which might be of use to the authorities. Guseff drew attention to the necessity of establishing schools of secret military service which would embrace the whole country like a network and openly declared that the structure of the Red Army was the instrument of the Communistic Party. ||

The principle that guided the Soviet authorities was that the Red Army must be supplied with officers who were imbued with Communistic ideas and equipped with a special knowledge of military science.¶ In a word, as Tuchkofsky remarked, it is only possible to found a sound military doctrine based on the teachings of Karl Marx, which would meet Bolshevik requirements. **

Such being the basis of the training of officers in the Red Army, it is now necessary to understand the system of military science taught in the Academy at Moscow, and to consider the writings of the present-day military authors in Russia.

In the opinion of the Soviet experts, "the Army of the old *régime* evinced in an equal degree a great progressive spirit coupled with great backwardness." †† Does this mean that we are to take as a sign of this progressive spirit the enthusiasm evoked in Russian

* See *Journal of the Military Technical Committee of Liaison*, p. 75.

† *Ibid.* p. 86.

‡ See *Journal of Committee of Liaison*, p. 148.

§ *Ibid.* p. 87.

|| See Guseff, "Lessons of the Civil War," pp. 34-36.

¶ See "Two Years of Red Military Academy," Preface.

** See "The Red Army," *Journal of Military Academy*, p. 4.

†† *Ibid.* p. 8.

military circles shortly before the World War by the writings of the French Colonel Grandmaison? If so, the progressive spirit was unfortunate in its results, for there can be little doubt that the Colonel's pernicious theories were greatly instrumental in Russia's defeats in East Prussia during August, 1914, and they all but brought disaster to the French Army at the same period. A general staff which could place hopes on such fantastic theories was certainly playing with fire and their acceptance does no credit to General Yanushkevitch, the Grand Duke Nicholas's right-hand man, and his assistants, any more than it does to Joffre and his French colleagues. It is to be trusted that a merciful Providence will guard us in the future from such leaders who guided the forces of nations in August, 1914. It was solely due to the heroism and efficiency displayed by the B.E.F. that disaster was averted on the Western Front in the initial stages of the war, certainly not to the French higher leading. But to return to the subject of this article. When the three years' course was resumed at the Academy three different tendencies at once became apparent in the military teaching; the national school of thought as embodied in the campaigns of Suvoroff with the works of Dragomiroff and Leer; the French, as exemplified by Gilbert and Bonnal; and the German with Moltke and Schlieffen as the protagonists.

A special feature was made of Suvoroff's methods, which were considered to be of exceptional value, being akin to the Russian national characteristics. "Let us mention that these ideas were totally unknown to modern European armies and it was due to them that Suvoroff and our Army were no less than half a century ahead of Europe." * If this view may be considered somewhat exaggerated it contains, nevertheless, some truth, for Suvoroff stood for decentralization of command in a far greater measure than Napoleon and as an exponent of will-power and driving force was only equalled in modern times by the Emperor himself. The 1799 campaign in Italy shows him to have been a master of march strategy, and it is regrettable that its study has been neglected up to the present in Western Europe.

The opinions of General Dragomikoff are of but little value, his predilection for the bayonet attack being too well known to need comment. A single quotation from his work will show how little he was versed in military history. "Who at the present time knows Wellington and does not know Napoleon? Even if one does know about Wellington, is it not because he had the honour to encounter

* See Verhofsky, "Military Art in Russia," p. 171.

Napoleon (at Waterloo) ? ” * His views about the Iron Duke were not only invariably inaccurate but faulty to a degree, which is all the more amazing, seeing that he was Director of the Academy at St. Petersburg from 1878 to 1889, when he was appointed to the post of Governor-General of Kieff.

It is interesting to note that students at the Moscow Academy are urged to read many pre-war text-books, such as Leer, Bayeff, Maslofsky, Miknevitch, Neznamoff, and historical works beginning with Miliutins (the 1799 Campaign in Italy under Suvoroff).

Though undoubted preference is shown for native authors, foreign writers are also read, especially such works as Bonnal's *Vilna*, Gilbert's *Essais Critiques*, and Balck's works on tactics.

The question now arises how do present writers in Soviet Russia approach the subject of military science ? It may be stated at once that many articles and books by modern writers are instructive, and, if they do not show a thorough grasp of strategy as exemplified by the great captains, their ideas are often correct so long as politics are not in the foreground, which is too often the case.

Among the articles that have appeared in the military press is a series entitled “ Problems of the Military Historical Commission, experiences of the Great War.” † Besides these are interesting articles dealing with “ The German Military Doctrine,” “ The Evolution of Tactics in the Great War,” etc.

It is useful to know how opinions vary concerning current military questions. Thus Neznamoff, a professor of the Imperial Military Academy before the war, wrote in 1919 that fortresses nowadays had no longer any importance, whereas Novitsky, also an ex-professor, was all in their favour. The time would arise, he felt certain, when as a result of the evolution of war they would again play an important rôle. The little value of fortresses at the present time he considered to be due to the great size of armies taking part in battle and the enormous extent of battle fronts. ‡

Another article contains many correct ideas on the rôle of cavalry in the Great War : “ We do not see in the late war a capable handling of cavalry by the higher command.” §

Military students do not need to be reminded how much truth is contained in this criticism. Many opportunities were certainly lost both on the Western and Eastern Fronts before October, 1914,

* See Dragomikoff, “ Napoleon and Wellington,” *Military Journal*, St. Petersburg, June, 1897, p. 175.

† See “ Military Work,” *Journal*, No. 1, p. 49.

‡ *Ibid.* No. 3, p. 123.

§ *Ibid.* No. 2, p. 94.

when cavalry well-handled in conjunction with artillery might have achieved considerable success.

Soviet military experts are great advocates of cavalry masses and in their advance on Warsaw in 1920 their forces were composed exclusively of horsemen *à la* Tchingiz Khan. Moving in this manner they frequently covered fifty to seventy kilometres a day, and once from Brest Litofsk to Salicheff two hundred kilometres in two days. After the Polish War the Bolsheviks decided to form their cavalry into corps, as cavalry armies were unwieldy. As regards infantry the view in Moscow to-day is that this arm has not lost its importance in modern battles.*

It should always be borne in mind that the Red Army is controlled by the military soviets. The heads of the political sections are not elected by party organizations, but are appointed by the central committee. The same principle applies to members of the revolutionary military soviets. All members of such soviets take part in discussions and form a ruling governing body. The section which is designed to deal with military movements in time of war is the only one under the control of an individual whose task it is to work out the mode of transport by rail or road. However, it must not be inferred from this that he is allowed any real independence, the actual command being vested in the military soviet of two or three members.†

"Nothing is so important in war as an undivided command," said Napoleon; and yet the Soviet authorities prefer following in the footsteps of the Allies during the World War. They keep their military leaders in fetters for, if they are not actually under the direct control of the Government, they are supervised by commissars, who are always with them. "The absence in recent years of men with strong character in Russia was equally felt in the Army," was the complaint of Kuropatkin,‡ and this dread of allowing the Army to come under the influence of a great leader is the thing that the Bolsheviks fear most of all to-day, knowing that it might endanger their *régime*. The surest way to gauge the stability of a Government is to observe its attitude towards its Army. Where suspicion reigns, a *régime* rests on a shaky foundation. This is the state of affairs in Soviet Russia, where there exists no trust in the moral stability of any individual.

By the decree of the 28th of September, 1922, the male population

* See Guseff, p. 20.

† See Guseff, "Lessons of the Civil War," p. 41.

‡ See Kuropatkin, "Problems of the Russian Army," vol. iii, p. 313.

of the country was to undergo two forms of military service—either in the Regular Army or in the Territorial Militia. The object of the Bolsheviks was to maintain a strong Standing Army at the least possible expense, the half-ruined condition of the country precluding the upkeep of the force which existed before 1914 or in France at the present time. Up to 1912 fifty-five per cent. of the male population of Russia underwent military training, the remaining forty-five per cent. being exempt (only sons, doctors, teachers and clergy), including the unfit for reasons of health. In 1912, however, the conscription law was revised, and the military authorities became more exigent, although even then two-fifths of the men called up to serve received their discharge. But the Red authorities saw things in a different light, for, although in theory they preached the gospel of liberty in all its forms, by the decree of September, 1925, they cancelled all exemptions. Thenceforth the only concession made was a shorter term of service in the Territorial Militia instead of the Regular Army. A definite term of service in the Army was fixed for all men between the ages of twenty-one and forty, but boys of nineteen were also obliged to pass a preparatory stage of training of two years' duration. Service proper lasts for two years (beginning at the age of twenty-one) followed by a so-called secondary service of three years. As regards the Militia, service lasts for four years, during the first of which it lasts for three months, and for the three remaining years for one to two months annually. Having completed a five years' term in the Regular Army or four years in the Militia, men of both branches are relegated to the First Reserves until they reach the age of thirty-four, when they join the Second Reserves until they reach the age of forty. While serving in the Reserves men undergo a course of training (for the whole period) not exceeding three months annually. Ninety per cent. of the cavalry and engineers and slightly less than half of the infantry, artillery and air force belong to the Regular Army.

It is interesting to note that twice as many men pass through the Militia as pass through the Regular Army; the reason for this is that it costs half as much to train a militiaman as it costs to train a Regular soldier.

Out of a total population of 140,000,000, 1,200,000 men are annually called up, and according to Frunze, the former War Minister, the Bolshevik Regular Army numbers 562,000 men; this is the last official communication and was issued just four years ago. He also pointed out that of the 1,200,000 called up to serve, 300,000 to 350,000 were considered unfit, which left 850,000 to 900,000

recruits. Now if from this total are deducted 270,000 men drafted into the Regular Army annually, it leaves a surplus of 580,000 to 630,000 men available for the Militia ; therefore, it can safely be concluded that the total number of men undergoing annual training cannot be less than 1,142,000 to 1,192,000. Further, in view of the armed forces continually showing a steady increase, judging by the period 1922-1925 it will not be far wrong if the present Regular Army roughly is calculated to amount to 600,000 men, together with 700,000 militiamen, giving a grand total of no less than 1,300,000 troops.

It should always be remembered, however, that great danger would arise in the event of hostilities by the mere fact that seventy per cent. of the forces would be reservists. Such an authority as General Kuropatkin, who as an administrator had few rivals, although he did not shine to advantage as a leader in the field, expressed his opinion two years before the World War that reserves in each company should be in the minority on the outbreak of hostilities.*

It may well be wondered how these militiamen could ever aspire to rank as Regulars. Their presence in the field might be a danger which the Soviet could not neglect if it ever waged serious war, and might alone be instrumental in bringing about the downfall of the present *régime* in Russia. In addition to this, there is a serious shortage of non-commissioned officers in the Militia, which no measures up to now have ever been able to ameliorate.

This state of things will continue until the Red Army takes things into its own hands and substitutes a military dictatorship in place of the present *régime*, which stifles every individuality and places no trust in any one man, whatever may be his rank or military reputation.

How can the Military Academy, even after a three years' course, turn out qualified military leaders when the whole atmosphere in which its students are trained is one of political propaganda and personal suspicion ? Later on, when these students are holding important posts in the Army, in command of a brigade or of a division, they are constantly reminded of the importance of politics by the commissars who are always with them. They are also subject to periodic inspections by officials from the Central Government, who are absolutely ignorant of military matters. No single general is ever left to himself for fear of his endangering the State.

What, then, is the fighting efficiency of the Red Army ? Numerically, it is of course very powerful, but its weakness is also noticeable, for—even allowing that its leaders may be up to date

* See Kuropatkin, " Problems of the Russian Army," vol. iii, p. 35.

in every military branch of knowledge—although it is doubtful whether this is really the case—they would never be allowed a free hand in war. They would be impeded from the beginning of hostilities by Government officials, and there would be a cumbersome centralization which would result in endless delays in the carrying out of a plan of campaign and the transmission of orders. If at the opening of the 1914 campaign the Grand Duke Nicholas erred on the side of excessive decentralization, haunted by the fear of repeating the mistakes of Kuropatkin on that score in Manchuria, it is safe to say that things would be infinitely worse with the Soviet's forces than anything in the Japanese War. Further, in a country where a sound doctrine of war is lacking, where opinions on the subject are at variance or continually fluctuating, where a strong guiding hand is not at the helm, there is little hope for the efficiency of an Army in the field.

The Russian Army which had been brought up in such an atmosphere fared badly in the late war ; what hope is there for the Red Army should the Bolsheviks decide to embark upon hostilities of a serious nature ? It must, however, not be inferred by readers of the *Army Quarterly* that in criticizing the Red Army the writer of this article is by any means blind to the grave shortcomings that exist in the armies of other Powers in Europe. The campaigns of Napoleon, Moltke and the World War receive a one-sided presentment at the Staff Colleges, and, if authorities in Western Europe fondly imagine that they are teaching students on correct lines they are grossly mistaken. The writer considers that up to now not one of these campaigns has ever been properly presented to students because, as a rule, the professors approach their subject with preconceived ideas. If the best authors such as Gilbert, Bonnal, Foch, Grouard, Camon in France, Schlieffen, Bernhardt, Schlichting, Scherff in Germany, to name only the foremost, are glaring examples of this one-sided individual presentment, what can one say about the professors, whose names are known only to their students and are forgotten once they leave the institutions to which they are temporarily attached ?

It behoves us, when studying the Red Army and its tendencies, not to follow in their footsteps, thus avoiding any rash conclusions. Russia's present *régime*, under which the spreading of Communistic ideas occupies the first place in military teaching of the Army, is the sole barrier to a healthy study of military subjects. When the Soviet domination has been thrown overboard (certainly not by means of evolution, as many people still believe in Western Europe) by

these same Red forces under a dictator, then and not until then will the Army be able to undergo drastic reconstruction. If Russia is ever fortunate enough to find a man of genius at the head of the State, her fighting forces will be as efficient as those of any other Continental nation. Such a man will have no better guiding principle on which to act than that supplied by Colonel A. Grouard, the veteran French author: "*Les principes de l'art de la guerre brillent dans l'histoire comme le soleil sur l'horizon ; tant pis pour les aveugles qui ne savent pas les voir.*"

MORE MARNE THROUGH GERMAN SPECTACLES

9TH OF SEPTEMBER, 1914*

(*With Map*)

THE fourth of the German official monographs on the battle of the Marne, 1914, has the sub-title of "The Outcome of the Battle," and deals with the final and decisive day, the 9th of September, on the front of the Second Army (Bülow), and of the three divisions (under General von Kirchbach) of the Third, cooperating with Bülow. It has been compiled by Major von Bose, who in September, 1914, was on the General Staff of the Guard Corps. It is to be followed by a separate monograph on the battle of the Ourcq. Like its predecessors, it is a very detailed narrative of the movements of units, but it fails to provide copies of orders, messages and such like, and tends to glorify the officers and men of the old German army rather than provide an objective account.

The orders for the 9th of September, which General von Bülow issued to his four corps between 10 and 11 p.m. on the 8th, by telephone, are summarized as follows :

"He ordered that the attack should be continued by the left wing of the Army, whilst the right wing was pulled back. The 13th Division and the X Reserve Corps [on the right] had to be in fighting position by 6 a.m., right flank at Margny [that is some nine miles *in rear* of where it was on the morning of the 8th], left in touch with the right of the 19th Division [X Corps] in the neighbourhood of Le Thout. The X Corps and 14th Division [centre] were to maintain the position won ["held" would be better] on the 8th. The Guard Corps on the 9th September was to continue its attack movement on a broad front on both sides of the Fère Champenoise—Sézanne Road [that is south-west], right flank on Sézanne *via* St. Loup ; left on Chichey *via* Pleurs. Kirchbach's Group (32nd, 23rd Reserve and 24th Reserve Divisions of the Third Army) was to cooperate in the attack on the immediate right of the 2nd Guard Division."

* *Das Marnedrama, 1914. 2. Abschnitt des 3. Teiles. Der Ausgang der Schlacht. Herausgegeben im Auftrage des Reichsarchivs.* Oldenburg, Stalling, 5 marks.

The previous three volumes were reviewed in the *Army Quarterly* in July, 1928, and January and April, 1929.

The compiler remarks that the order did not contain any information about the intentions of the First Army (Kluck), or any task for the I Cavalry Corps (Richthofen), under Bülow's command, because there was no news of them. It might also be remarked that Bülow made no statement as to his own intentions. We may, however, conclude, as his centre was to stand still, the right to go back and the left forward, that he meant to align his army facing Paris, as ordered by the Supreme Command on the 5th of September, regardless of the fact that by so doing he would place it at right angles to the general front of the French.

Some hours later, early in the morning of the 9th, Bülow, having got into communication with the I Cavalry Corps, ordered General von Richthofen to protect the right flank of the Second Army, "as far as the Marne," with the Guard Cavalry Division, and to block the Marne passages from Binson down to Château Thierry with the 5th. The latter division did not receive the order until midday, after it had retired 3 miles northwards from Marigny (7½ miles W.N.W. of Château Thierry), and the section of the Marne allotted to it remained unguarded. As the French, except Conneau's Cavalry Corps at Château Thierry, did not reach the river on the 9th, the omission was of no consequence.

The 13th Division retired during the night completely unmolested, and patrols saw nothing of the enemy, who made no movement and in the morning opened fire on the old targets of the previous day. Towards 11 a.m. some weak skirmishing lines were seen at extreme range and were stopped by artillery.

Similarly the two divisions of the X Reserve Corps retired unobserved and unhindered at 1 and 3 a.m., and by 10 a.m. had dug in on their new position; only a machine-gun company which had not received orders was left behind, and this had some losses in retiring by daylight when it discovered its situation. There was no infantry fighting in the X Reserve Corps on the 9th, but a certain amount of shelling took place. Thus, as far as Bülow's right was concerned, there was no battle on the 9th.

Coming to the X Corps in the centre, in the sector of the 19th Division, until after 2 p.m. there was little but artillery fire on the right and centre, and practically none even of that on the left; the French infantry made no attempt to attack. One German regiment (91st) which advanced at 3.45 a.m., owing to a misunderstanding, went nearly a mile, found nothing and returned unhindered. There was some scrapping in the woods on the front of the right of the 20th Division, which died down in the course of the morning.

On the left of this division there was a somewhat significant incident hitherto quite misunderstood. Owing to a breakdown in the communication of orders in the 39th Brigade, "this formation by no means achieved the uniform state of readiness for action ordered for 5 a.m." In fact, the 164th Regiment, on the left, advanced in the morning mist one and three-quarter miles in front of the line to Mondemont, occupied apparently by a French advanced post. It captured the château, and repulsed all French counter-attacks. It evacuated the château at 7.30 p.m. in the general retirement without interference from the enemy. Thus this historic fight turns out to have been an isolated action of no importance, and the pictures of its final storming by the French appear to be apocryphal.

The 14th Division at the Marshes of St. Gond pushed over the causeways "in columns of fours with arms at the shoulder, preceded by scouts," and occupied the three villages of Broussy (le Grand, le Mesnil, and le Petit) beyond, seeing little of French infantry, but receiving some artillery fire. At Broussy its left was in touch with the Guard Corps then advancing.

In the offensive wing, the Guard Corps and Kirchbach's Saxons, the attack was got under way on a 12-mile front, although owing to bad communications—cable laid on the ground which was broken—orders did not reach any of the divisions before 2 a.m. on the 9th, and no infantry advance took place before 8.45 a.m. After considerable artillery fire on both sides, the Germans—and probably the French—not knowing where the enemy line was, the movement was begun over ground perfectly open except for a few woods. What the Germans met we have yet to hear from the French, but they gained from two to three miles of ground, and it is claimed that "resistance in front of the Guard Corps and 23rd Reserve Division (on the extreme German left) was broken, and was breaking down opposite the 24th Reserve and 32nd Divisions." At this moment, between 1 and 2 p.m., came the orders to retire. There could have been but little real resistance if an infantry advance of two or three miles was made over open country between 8.45 and 2 p.m., after all the previous fatigue of marching and fighting.

The monograph does not go into details of what happened at Bülow's headquarters. It assumes—there is no evidence—that a bargain was made between him and Hentsch, the representative of the Supreme Command, who spent the night at his château, that if on the 9th enemy columns pressed on into the gap between the First and Second Armies and crossed the Marne, both these Armies should retire. Nothing is said of the gap on Bülow's other flank,

which his operations of the 9th merely tended to widen ; but he is blamed for not finding out the situation of the First Army before taking any decisive step. Shortly before 10 a.m. on the 9th aviators reported five hostile columns approaching, and the heads of two across the Marne. From the places named all these columns were British. At 10.40 a.m. this news was confirmed by the Second Army overhearing a wireless message of General von der Marwitz (II Cavalry Corps) to Kluck, which reported the two columns across the Marne. At 11.02 Bülow, having decided to retire, wirelessly to Kluck :

“ Fliers report advance of four (*sic*) long columns over the Marne. Heads at 9 a.m. Nanteuil, Citry, Pavant, Nogent l'Artaud. Second Army starts retirement, right flank Damery. What is the situation in the First Army ? ”

This message, we are told, “ was only taken by the stations of the First Army shortly after 1 p.m., and the Chief of the General Staff of the First Army received it only towards 2 p.m.” Much hangs on the times, for before 2 p.m. the decision that the First Army should retire had also been made.

Bülow issued the order for retreat to his corps by telephone at 11.45 a.m. It is not given in extenso. We are told :

“ Its chief points were :—

“ In the interest of the operations as a whole, the Army, having achieved its object, will turn to its new task on the north bank of the Marne, and will therefore reach first the line Damery—Tours north of the Marne.

“ The movement will be begun on the left flank. The Guard Corps and the Saxon divisions under General v. Kirchbach will begin the movement at 1 p.m. Guard Corps on the road Fère Champenoise—Vertus—Avize—Athis—Tours ; General v. Kirchbach's troops east of this road.

“ In order better to shake clear of the enemy, all divisions will leave rear guards with strong artillery in contact with the enemy, at least until the approach of darkness.

“ The movement of the main body of the 14th Division and the X Corps is not to begin before 2 p.m., that of the X Reserve Corps and 13th Division not before 3 p.m.”

This order reached the corps between 12.15 and 1.05 p.m., and warning orders were at once dispatched to divisions, and before 2 p.m. “ complete battle rest ensued.” But “ never in the World War did an order occasion such consternation, unbelief and incomprehension.”

The Second Army had little difficulty in breaking off the action and getting clear. The I Cavalry Corps was already north of the Marne. As the 13th Division left its position, there was a

recrudescence of gunfire, but it withdrew without loss, and its cavalry remained until 5.30 p.m., when it moved off undisturbed by the enemy. In the X Reserve Corps, the 19th Reserve Division was fired on by artillery, but its rear guard kept off the enemy until 5.30 p.m. and then drew off. The 2nd Guard Reserve Division retired under similar conditions "without any loss worth mentioning," and then complete quiet ensued. Some of its cavalry remained until 5 a.m. next morning reporting "no troops to be seen south-west or south. In Le Mesnil [Broussy] enemy troops at rest at 4.30 a.m., strength unknown."

The orders to the 19th Division (X Corps) to begin the retirement at 2 p.m. did not reach it until past that hour, and the movement was not begun until 4 p.m. There was some artillery fire on the right, but not an enemy cavalryman, far less an infantryman, was to be seen. By 5.30 p.m. all the troops had marched off except a forgotten detachment of 150 men, which rejoined on the 11th. On the front of its sister division, the 20th, the enemy infantry seemed to have disappeared, and, except for a little gunfire, it drew off at 4 p.m., undisturbed and without loss, Mondemont being abandoned, as already mentioned, at 7.30 p.m., "completely unhindered and unnoticed by the enemy"; all the wounded were carried off. Until 7 a.m. next morning the bridges over the western end of the Marshes of St. Gond remained in German hands.

The 14th Division recrossed the Marshes under some artillery fire. It, like the 20th, held the bridges until 7 a.m. on the 10th, at which hour the rear guard could see nothing of any pursuit by the French.

In the Guard Corps, the order for retirement reached the divisions at 2 p.m. The astonishment and disgust it occasioned are recorded at great length. The 1st Guard Division issued its orders at 3.55 p.m., and the troops marched off unmolested. The rear guard, which remained until 8 p.m., after concentrating and feeding from the field-kitchen wagons, heard "a few shots of the French artillery well to the west. They were no doubt the first signs of the appearance of the French 42nd Division." This agrees with the account of General Grossetti, the commander of this division, who has written that the division arrived too late to do more than fire its guns in the failing light at the retiring enemy. The 2nd Guard Division retired at 5 p.m., and its rear guard about 7 p.m., "without the slightest sign being seen of the enemy," and the engineers remained behind destroying bridges until 1 a.m. without any interference.

Similarly the three Saxon divisions, which received the retirement orders about 4.30 p.m., collected and drew off undisturbed, "without leaving behind an unwounded man or any equipment serviceable to the enemy." The rear guards remained in position on the Somme until daylight on the 10th without seeing a Frenchman, but they had some fighting later in the day.

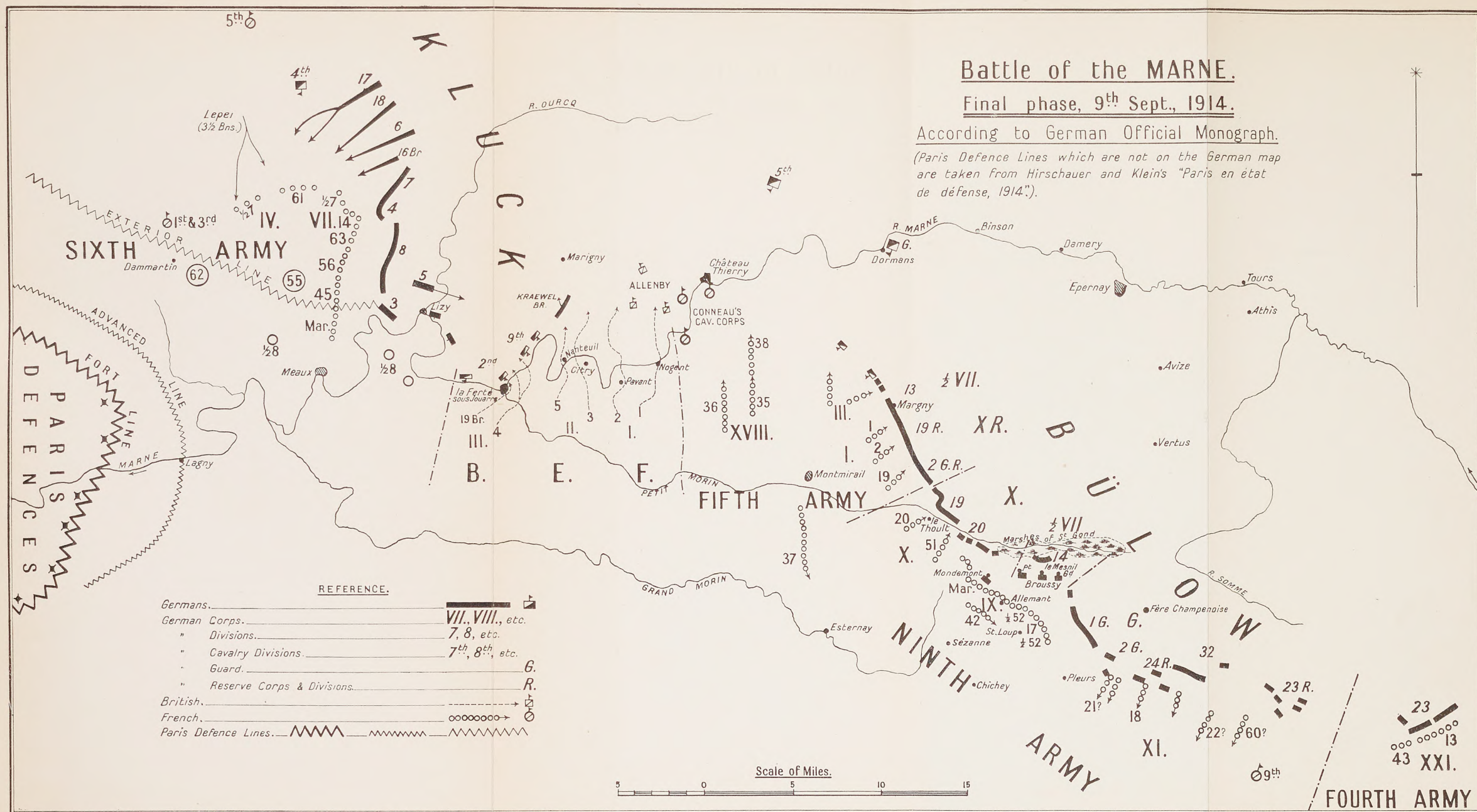
In the closing remarks the compilers attribute the loss of the battle to the Supreme Command, "which, keeping far behind the front, could not obtain any adequate picture of the mighty struggle, still less exercise any influence." It is claimed that the map situations were deceptive, and that on the 5th of September the Germans were in no real danger from an attack in the Paris direction, that the great gap in the front and the strange directions in which the First and Second Armies fronted were of no importance, and, in any case, the Germans were the attackers (though not on the front of the B.E.F.).

The system of the German General Staff of sending round comparatively junior officers, like Lieut.-Colonel Hentsch, with powers to give decisions in the name of the C.G.S. is condemned. The German artillery also comes in for criticism; the real fight, it is said, was between the French artillery and the German infantry unsupported. Kluck receives praise, but Bülow is depicted as nervous and lacking in initiative; it is suggested that he left the First Army to its fate, and ought to have supported it, or at least kept connection with it by means of the VII Corps (his right). The book ends with the phrase that "the troops were robbed of their victory." Before admitting this claim, we must await the French account.

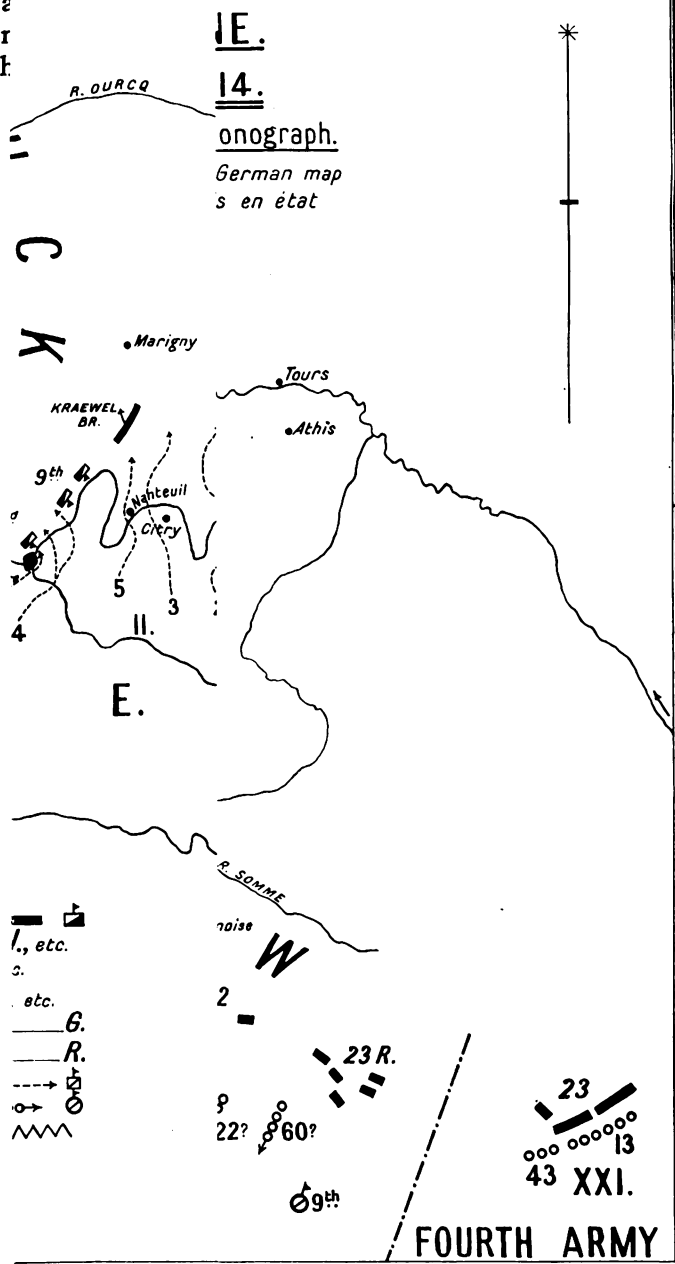
For the first time in the German official histories and monographs, there is an appendix giving the casualties ("Verluste," not divided into killed, wounded, and missing), and also the strengths on the 9th or 10th of September. They are totalled up by corps, and are :

	Casualties during the battle of the Marne.		Strengths on 9/10th September.	
	Officers.	Men.	Officers.	Men.
VII Corps	41	951	393	14,522
X Reserve Corps	87	2,091	247	12,774
X Corps	89	3,579	228	10,839
Guard Corps	179	5,748	259	12,366
32nd Division	102	2,934	130	6,566
XII Reserve Corps	91	2,173	398	17,165
(1 division only until 8th and 9th)				

The surprising feature of these figures is the low strength of the corps. The establishment of a division was 17,500, and of a corps about 36,000, so that after the battle no corps was up to half establishment. Of the divisions, the much-maligned Saxon 32nd Division had the heaviest losses.



[To face page 74.]



[To face page 74.]

THE TERRITORIAL ARMY

BY CAPTAIN W. J. ARNOLD, The East Lancashire Regiment

INTRODUCTION *

THE military commitments of Great Britain, the reduction in size of the Regular Army and its reserve and the disappearance of the old Militia and the Special Reserve Battalions have combined together to increase the importance of the Territorial Army.

It is the declared policy of the War Office that, in any future war of first-class importance, the Territorial Army will be used as the medium of expansion. It is, then, the foundation of our Army system and as such should be closely linked with the Regular Army in organization, equipment and training.

Moreover, in addition to, say, duplicating itself, the Territorial Army may be required to augment or support the Regular Army overseas in the early months of a national emergency. It must, therefore, be capable of great and rapid expansion ; in other words, the bulk of its *personnel* must be potential "trainers" and "leaders."

But, like the Regular Army, the Territorial Army has been reduced in size and its share of the annual military vote has, likewise, been reduced. The training of this voluntary Army is of the utmost importance, especially in these days of rapidly changing weapons and methods of warfare. This training must be on sound and up-to-date lines.

* Since writing this article on the Territorial Army, the writer has heard the outline of the intended alteration in the organization of Territorial Army Infantry Battalions to : Bn. H.Q., headquarter wing, machine-gun company, and three rifle companies.

This alteration does not affect the scheme outlined in Part IV (paras. (7) and (8)) of the article ; in fact, in one respect it coincides with it.

As regards the machine-gun company : the total, all ranks, in the proposed scheme differs very slightly from the War Office decision and the general principle (4 platoons in peace, as in war) is the same. The War Office does not appear, however, to contemplate introducing an anti-tank Group at present. This would be an economy not provided for by the writer.

The article suggests the necessity for more limbers, though where suitable shaft-draught half-limbers are intended, the War Office intends the Peace Establishment of limbers to remain unchanged and the extra vehicles required to be hired for annual camp.

It is further pointed out that the establishment given in the Appendix to this Article could be further reduced by decreasing the number of machine-gunners and signallers, though it is desirable to train as many specialists as possible.

It appears desirable to consider :

Its suitability as a means of expansion for a national emergency and what could be done to improve it.

The liaison between the Regular Army and the Territorial Army.

Territorial Training as at present carried out and a proposal to improve it (with reference to an infantry battalion).

PART I

(a) The Territorial Army, as it exists to-day, is below establishment, and would, therefore, require to enlist a fairly large number of men on embodiment to bring it up to strength ; this means that the Territorial Army itself would not be fit to take the field for three to six months after mobilization began. (N.B.—It is assumed that the Territorial Army would be embodied immediately mobilization was ordered.)

(b) But a great war would demand more from the peace-time Territorial Army than merely taking the field after, say, three to six months' training on mobilization.

The Territorial Army must be capable of being expanded into a National Army. How can this be accomplished ?

Assuming that each existing unit be required to duplicate itself on mobilization and that from these two units a reserve (i.e. training and draft-finding) unit be formed later, it at once becomes apparent that the vital need will be for instructors and leaders ; in other words, officers and non-commissioned officers will be at a premium.

(c) The existing peace establishment of officers should be increased—at present an infantry battalion has only three officers per company, as compared with six in war.

(d) On mobilization, therefore, a large number of officers and non-commissioned officers will have to be found. The Territorial Army reserve of officers is small, and, moreover, at present contains a large number of war-time officers, who are completely out of date as regards modern tactics and weapons. The senior and junior divisions of the O.T.C. form a potential source of supply, but cadets whose military training terminates when they leave their school or university cannot be classified as “trainers and leaders.” Only a small proportion of O.T.C. cadets can take up Territorial Commissions, but a real effort should be made to get others, who are suitable, to take Commissions in the Territorial Army Reserve of officers. These latter should be required to attend annual training

at least once in two years, and they should be encouraged to attend every year.

Many young men who early in their civil careers, are unable to spare the time required for ordinary Territorial work would welcome the opportunity of serving their country in this way, and incidentally, of having 8 or 15 days in camp.

Officers of the Territorial Army Reserve of Officers should also be enabled to carry out attachments, or attend courses of instruction with Regular units or depôts. They should also be allowed to attend tactical exercises, receiving pay and allowances, and to attend annual training whenever their business or profession admits, even when all the unit's own officers are in camp.

(e) As regards the supply of non-commissioned officers, every man in the Territorial Army in peace should be a potential non-commissioned officer for war. At present this is far from being the case, owing, in many cases, to the type of man recruited. An effort should be made to improve the educational, mental and physical standard of Territorial Army recruits.

(f) Another important factor on mobilization would be the supply of specialists—machine gunners, signallers, transport personnel, etc. The existing peace establishments of specialists are much below those required in war. In an infantry battalion, for example, the peace and war establishments are as follows :

		Peace.	War.	
Machine gunners	92	165	} O.Rs.	} O.Rs.
Signallers	27	33		
Transport (drivers and grooms)	18	75		

Admittedly many units at present find great difficulty in keeping up the supply of specialists, and these are often below establishment, while few, if any, can train a reserve of specialists on which to draw on mobilization. This subject, however, will be dealt with later.

(g) The standard of training which it is possible to reach in peace time prohibits practice in cooperation between the different arms of the Service. Exercises for mixed forces of all arms will be necessary after mobilization.

(h) Further factors affecting the readiness for a national emergency and the training of officers, non-commissioned officers, and specialists will be dealt with in Part III, below.

PART II

(i) The Territorial Army now definitely forms the Second Line in the defensive organization of the Country, and it is most important

that all possible encouragement and help be given to this force by the Regular Army. There are, happily, signs that the liaison between the two is being promoted. Every encouragement is given to Territorial officers to carry out attachments with Regular units in barracks, and to a limited extent during the periods of higher formation training; while many courses of instruction are open to Territorial officers. The same applies in a lesser degree to non-commissioned officers.

(j) Doubtless this liaison varies to a great extent, depending on the broad-mindedness of the officers commanding Territorial units, Regular units and dépôts.

It has been the writer's experience that the necessary liaison has increased to a marked degree during the last two years, that Regular commanding officers are willing to accept all Territorial *personnel* who are free to carry out extra training, that all ranks of the Regular Army now take considerable interest in the Territorial Army and appreciate its work and its difficulties and the Territorials reciprocate this interest.

The attachment of Regular officers and non-commissioned officers, as instructors to Territorial formations during annual training is a step in the right direction, but it is suggested that the attachment of officers and non-commissioned officers to each unit, from the home battalion in the case of infantry, should be more general and not the exception—as at present.

Much mutual benefit is likely to accrue from the more widespread attachment of Staff College students during annual training; these officers should not always be attached to their own arm of the service, but when they are they should be attached to, say, a battalion of their own regiment thus increasing the liaison between Regular and Territorial units.

PART III

(k) The training of Territorials, of all ranks, must necessarily vary with the widely different conditions under which the different units and individuals serve. There must, however, be certain factors common to all and it is proposed to review some of these.

Before this can be done, it appears necessary to point out that the existing conditions of service and of the proficiency grant (or rather "bounty"—"proficiency grant" being a misnomer, as a man need not necessarily be proficient to earn it) leave much to be

desired. No obligation is placed on the non-commissioned officers or specialists for the necessary extra work they must do in order to become efficient and no financial reward is given when they perform extra drills ; while no discrimination is made, financially, between first and second class shots.

(1) *Training of Officers.*—Object : to produce officers who are “trainers and leaders” and who are fit to perform the duties, both at home and in the field, of an officer one rank senior to their own.

The training of the Territorial officer is, on the whole, conducted on sound lines, though there is much that could still be done. Officers are now required to pass Promotion Examinations “a” and “c” (Practical) before being promoted ; this is sound, but the advisability of a recent instruction whereby it is left to the discretion of certain officers as to whether War Establishments or Territorial Army Peace Establishments are used is questionable. The above-quoted instruction makes no proviso for Territorial Army officers attending the written examination—which they are encouraged to do—so it appears that they are required to work on “existing organization” of the Territorial Army (i.e. Peace Establishment) for their practical examination and on “British War Establishment (Small Wars) for their written examination. Territorial officers are encouraged to read War Office Memoranda on Collective Training, to carry out attachments with Regular units during collective training, to attend lectures, and generally to keep themselves up to date with the trend of modern military ideas, and yet in their promotion examination they are required to work on a different basis. It is suggested that the establishments and organizations laid down for Regular officers should be made applicable to Territorial Army officers. A War Office pamphlet entitled “Notes for Officers studying for Promotion Examinations, 1927,” suggests that a good method is to study the schemes set in “b” and “d” examinations and published twice yearly in the “blue reports” ; these are based on war establishments and are liable to confuse Territorial Army officers if used while the instruction referred to is in operation.*

On the whole, however, the theoretical knowledge of Territorial Army officers in weapon training and tactics is good, but they undoubtedly lack experience in command, i.e. as leaders. This is due to considerations which will be discussed under the heading of Collective Training at Annual Camp.

* Instructions have since been given that Regular, Territorial and Supplementary Reserve officers should use the same Establishments for examination purposes.

Courses of instruction are now entirely voluntary for Territorial Army officers, and rightly so ; those who can get away are encouraged to attend courses, to carry out attachments, etc., but the majority are unable to do so in addition to attending annual training. It is suggested that if the peace establishment of officers were increased, a certain number should be allowed to count recognized courses and attachments in lieu of annual training. An officer who has attended a three-weeks' course at Catterick (R. School of Signalling), or at Hythe (S.A. School—Rifle and L.G. Wing), or who has commanded a platoon of a Regular battalion, during higher formation training or manœuvres, is a distinct asset to his Territorial battalion.

It should be noted that there are no short courses at Netheravon (S.A. School—M.G. Wing) open to Territorial Army officers as are some three-weeks' courses at Catterick and Hythe.

(m) *Training of non-commissioned officers.*—As in the case of officers, the individual training is good ; especially in those units in which trouble is taken to allot a specific period during the year for this purpose and to arrange a systematic programme of training. Many non-commissioned officers attend courses and carry out various attachments, but, generally, men who make good non-commissioned officers are also good workers in civil life and are often indispensable to their employers. For such men, annual training is the maximum period which they can devote during the year to full-time Territorial Army work.

It will be seen, therefore, that the efficiency of non-commissioned officers depends on the voluntary classes held at the drill halls, Saturday afternoon and Sunday tactical exercises, and the training in camp.

Promotion examinations are now compulsory for promotion to the rank of sergeant and upwards ; this should also apply to promotion to the rank of corporal. These examinations should embrace all branches of a non-commissioned officer's work, and for an infantry battalion the following are suggested :

L/Corpl. (for promotion to Corpl.):							Marks.
Drill .. .. .	..	..	..	..	..	..	20
Weapon training :							
Instruct in rifle or Lewis gun .. ..	..	..	..	..	..	..	20
Conduct T.O.E.T. .. ..	..	..	..	..	..	..	10
Fire control orders (rifle or Lewis gun)	..	..	..	..	..	..	10
Section leading .. .. .	..	..	..	..	..	..	20
Map reading .. .. .	..	..	..	..	..	..	10
Message writing .. .. .	..	..	..	..	..	..	10
							<hr/> 100

Corpl. (for promotion to sergeant) :							Marks.
Drill .. .. .	..	..	..	..	..	..	20
Weapon training :							
Instruct in rifle and Lewis gun ..	..	..	..	..	..	..	20
Conduct T.O.E.T. .. .. .	..	..	..	..	..	..	10
Fire direction and control orders (R. and L.G.)							10
Tactics .. .. .	..	..	..	..	..	..	20
Map reading .. .. .	..	..	..	..	..	..	10
Message writing .. .. .	..	..	..	..	..	..	10
							100

Standard 30 per cent. in each subject and 50 per cent. in whole examination.

Before promotion to the rank of C.S.M. and C.Q.M.S., those selected should be required to attend a fifteen days' attachment at the dépôt ; where necessary, owing to employment, these attachments should be allowed to count in lieu of Annual Training.

(n) The supply of specialists depends on the enlistment of suitable men, who should be required to complete at least one year, and preferably two, in a company before being transferred to H.Q. Wing. Their eventual efficiency as specialists depends on their keenness and on their willingness to attend many more drills than the obligatory twenty.

The question of numbers has been referred to in para. (f), above.

The existing peace establishment and the present scheme of proficiency pay do not tend towards an adequate supply of specialists for war. A proposal to rectify this is contained in paras. (r) and (s), below.

Little practice is possible in cooperation between infantry companies, machine gunners, signallers, etc.

(o) *Training of men in the ranks.*—The training of the private soldier varies in different units and with the type of man. Again, efficiency depends on the voluntary performance of extra drills.

Too much time should not be spent on drill, although its value is realized ; weapon training and field work are of great importance.

Higher authorities now lay it down that the training of the private soldier is only of secondary importance, that of the non-commissioned officer being of primary consideration, but it should be remembered that “ the private of to-day is the non-commissioned officer of to-morrow,” and that a sound foundation is essential to efficiency. Time and money should not, however, be spent on a man who is unlikely to make a good non-commissioned officer or specialist.

(p) *Collective Training*.—It is rarely possible to carry out collective training prior to annual camp, although it is laid down that section training, at least, should be completed by then. There is a limit to the number of week-ends which officers and other ranks (especially non-commissioned officers) can, and will, give up to Territorial Army work, and the present financial stringency prohibits expensive week-end camps, etc. (especially for scattered units), and there are too many counter-attractions for the attendance at week-end camps to be good.

On the other hand, some units do manage to hold tactical week-end camps ; while others which carry out their musketry at week-end camps, sometimes fit in valuable demonstrations in section leading, etc. ; but it is never possible to get a whole battalion, company or platoon together on these occasions.

(q) *The period of Annual Training* is therefore the time when collective training takes place and is really the climax of the Territorial training year, which—briefly—should consist of :

- (1) Period during which officers and non-commissioned officers are trained in their duties (as weapon training instructors and as leaders).
- (2) The drill season, when the men attend and are instructed (in drill, weapon training, etc.) by the officers and non-commissioned officers.
- (3) The firing of the annual range courses, and this should be—but often is not—after the termination of the drill season (i.e. after the man has completed his drills).
- (4) Annual camp.
- (5) A short drill season may be necessary for recruits and those unable to complete their obligatory drills before camp.

N.B.—If a unit goes to camp early (i.e. at, say, Whitsuntide), musketry should take place after camp.

Great care should be taken then, in the drawing up of the programme of training for camp and careful consideration given to the standard of training to be expected. "War Office Memorandum on Army Training (Collective Training Period), 1927," says : "The object during annual camp must always be to reach a high standard of training in platoons and companies and if possible in battalion. Section training should be carried out almost entirely before camp."

Now many Territorial officers of experience consider that too much is expected of the Territorial, and undoubtedly there is

much in this. Weakness in numbers (some units are below strength ; and most units have some absentees, whether voluntarily or otherwise), brigade and regimental employments, etc., decrease the *personnel* available for training ; companies, platoons and sections are often ridiculously weak, and yet commanding officers are not encouraged, or are forbidden, to amalgamate sub-units for training. The importance of training the full number of leaders is realized, and is in fact being emphasized, but it is asking too much from a junior officer, or sergeant, of the Territorial Army to expect him to train or lead intelligently a platoon, of say, 25 per cent. to 50 per cent. of its normal strength. Again, there are always a certain number of recruits who are unable to take their place efficiently in their platoon ; these men require elementary training or they will never be of any use ; if recruits are trained separately in camp they further reduce the numbers available for more advanced training ; if the training is elementary all round, the spirit of the War Office instructions is sacrificed. On the other hand, with a reasonable amount of amalgamation, officers and non-commissioned officers can be given their turn of commanding full-strength companies, platoons and sections, recruits can be carefully trained in elementary field work and the spare officers and non-commissioned officers can be usefully employed as umpires, skeleton enemy and on tactical exercises without troops, map-reading, etc. Also, the spare officers and non-commissioned officers could be employed in preparing the following day's exercises in which they would be required to command troops.

In this latter connection it might be mentioned that a number, in fact the majority, of Territorials of all ranks get no other holiday from their ordinary work except annual training and that they should be free from, say, 2 p.m. or 3 p.m., daily. At present officers and non-commissioned officers are often kept busy until 6 p.m. and 7 p.m., preparing the following day's work, reconnoitring training areas, etc. It is suggested that an alteration in organization, as outlined in Part IV below, would greatly increase the standard of training generally.

The choice of camps is also important, and those which are reasonably near the ordinary peace-time stations of units have the advantage that officers can visit the training areas on several occasions prior to annual camp and work out their training schemes, programmes of work, etc.

PART IV

(7) Suggested Peace Organization for a battalion to enable better results to be obtained from the collective training during annual camp, to simplify the change from Peace to war establishment, and to provide a cadre of instructors for expansion.

N.B.—The existing organization is not such that the change from peace to war establishment could be easily carried out, and in several cases provision is not made for the training of certain *personnel* in the duties which they would be required to perform in war. The application of the "M.G. Company/3 Rifle Companies" organization to the Territorial Army provides an opportunity to consider these other matters.)

Headquarters Wing.

To be organized into 4 groups :

- (1) Battalion headquarters and intercommunication.
- (2) Anti-tank. (When authorized.)
- (3) Maintenance. (As at present, but to include transport.)
- (4) Band and drums.

Machine-gun Company.

To be formed forthwith ; at present delayed, although the Regular Army has made the change.

To consist of company headquarters and 4 platoons. There are 4 platoons in war, although the Regular Army only has 3 in peace ; it is, however, important to train junior leaders.

Four Rifle Companies, each having :—

A full complement of officers (i.e. 6).

A full complement of non-commissioned officers, plus 25 per cent. spare to allow for absentees from camp and to permit of some working with recruits.

Two platoons :

One consisting of trained men.

One consisting of recruits, who would in due course be utilized to fill up wastage in the headquarter wing and in the "trained men's" platoon.

Three cadre platoons (consisting of platoon and section commanders only).

Such an organization would enable a battalion to turn out for training in camp a full-strength company. The fifteen days in camp could then be spent in the following way :

1. Arrive in Camp.
2. Organization, Inspection, Interior economy.
3. Section Training.
4. Platoon Training.
5. ditto.
6. Company Training.
7. ditto.
8. Church Parade.
9. Company Training.
10. ditto.

11. Battalion Training.
12. ditto.
13. ditto.
14. ditto.

N.B.—When units had reached the stage of battalion training, brigade commanders could make up composite battalions, specialists of each battalion taking their turn, or battalions could function on their own, having a full complement of officers and non-commissioned officers, and as many men as they often have at present for training.

15. Return.

Officers and non-commissioned officers not carrying out platoon and company training could be trained under the second in command and the adjutant.

As regards the carrying out of the War Office instructions for the training of higher commanders and the holding of battalion, brigade, etc., days, there appears no reason why more use should not be made of exercises during annual training at which brigade, battalion and company headquarters are represented, officers and intercommunication *personnel* being employed. Divisional schemes of this sort could also be organized.

With an organization such as that outlined above schemes of this type could be used during, say, the first two days of battalion training, while the remainder of the unit carried out more of the elementary work for which there is so little time.

(s) *Finance*—

(1) *Proficiency Pay*.—The present proficiency pay is really a misnomer, being really a bounty, and it is suggested that the following scheme be substituted :

Proficiency pay : £1. This should be given to other ranks who fulfil the following conditions :

(a) Perform 30 drills (recruits 40).

(b) Qualify (not fire only) on a rifle, Lewis gun or machine-gun course, as a signaller, etc.

- (c) Attend annual training for 15 days (or 8 days, and perform 20 extra drills).

N.B.—The above-mentioned sum is based at the rate of 6*d.* per drill plus 5*s.* for efficiency. No grant unless all of the above three conditions are satisfied.

Extra Proficiency Pay : 10*s.* To be given to those who qualify as first-class in rifle, Lewis-gun, machine-gun, signalling, etc.

Non-commissioned officer's extra pay : 10*s.* To be given to those who perform an extra 20 drills (i.e. a total of 50 drills).

(2) At present 636 other ranks in an infantry battalion can earn a "bounty" of £1 10*s.*, which amounts to £954. Under the suggested alteration, 624 other ranks would earn £624 ; 200 (i.e. 30 per cent.) might earn the extra 10*s.*, which would amount to £100 ; and 100 (i.e. 60 per cent.) non-commissioned officers might qualify for the 10*s.* for extra drills, say, £50, a possible total of £774.

(3) The saving of approximately £200 would cover the pay in camp of the extra officers and non-commissioned officers allowed for in the suggested battalion.

(t) Finally, it is realized that there are drawbacks to the proposal outlined in (r) above, and that with very efficient units, having a large number of first-class shots and keen non-commissioned officers, the saving referred to in (s) (2) might be smaller than the cost of the extra leaders as shown in (s) (3).

But the machine-gun company could be further reduced and become, like the rifle companies, more of a cadre ; also the signallers.

SUGGESTED ORGANIZATION FOR T.A. INFANTRY BATTALION

	Officers.	W.O.'s.	Sergeants.	Corporals.	L/corporals.	Privates.	Boys.	Total.	Riding Horses.	Draught Horses (m).	Vehicles (m).	Bicycles (w).
H.G. Wing (q)												
No. 1 Group	4	—	2	3	3	40	—	52	4	1	1	8
No. 2 Group	1	—	1	4	2	13	—	21	1	—	—	—
No. 3 Group	2	2	6	3	1	15	—	59	2	7	4	1
No. 4 Group	—	—	2	2	—	42	—	46	—	—	—	5
Total	7	2	11	12	6	140	—	178	7	8	5	14
M.G. Company.												
H.Q.	1	1	1	—	—	7	—	10	1	—	—	—
4 sections (each) (r) ..	1	—	2	4	2	16	—	25	1	2	1	—
Total	5	1	9	16	8	71	—	110	5	8	4	—
Rifle Company.												
H.Q.	1	1	1	—	—	7	—	10	1	1	1	—
Training Platoon (o) ..	1	—	1	2	2	25	—	31	—	—	—	—
3 Cadre Platoons (each) (p) ..	1	—	1	2	2	1	—	7	—	—	—	—
Recruit Platoon (q) ..	—	—	1	2	2	25	—	30	—	—	—	—
Total	5	1	6	10	10	60	—	92	1	1	1	—
4 Rifle Coys.(o) Total ..	20	4	24	40	40	240	—	368	4	4	4	—
Battalion. Grand total	32	7	44	68	54	451	—	656	16	20	13	14
Details.												
H.Q. Wing :—No. 1 Group.												
Lt.-Colonel.	1	—	—	—	—	—	—	1	1	—	—	—
Major (2nd i/c)	1	—	—	—	—	—	—	1	1	—	—	—
Adj. (not included in total)	1	—	—	—	—	—	—	1	1	—	—	—
R.S.M. (not included in total)	—	1	—	—	—	—	—	1	—	—	—	—
Orderly Room Clerks ..	—	—	1	1	—	2	—	4	—	—	—	—
Signallers (a)	1	—	1	2(a)	2(a)	30	—	36	—	1	1	4
Intelligence Section (f) ..	1	—	—	—	—	—	—	1	—	—	—	4
M.O.'s Orderly	—	—	—	—	1	—	—	1	—	—	—	—
Batmen (b)	—	—	—	—	—	5(b)	—	5	—	—	—	—
Grooms (b)	—	—	—	—	—	3(b)	—	3	—	—	—	—
M.O. (not included in total)	1	—	—	—	—	—	—	1	1	—	—	—
Total No. 1 Group ..	4	—	2	3	3	40	—	52	4	1	1	8
H. Wing :—No. 2 Group.												
Subaltern	1	—	—	—	—	—	—	1	1	—	—	—
N.C.O.'s (j)	—	—	1	4(j)	2(j)	—	—	7	—	—	—	—
Privates	—	—	—	—	—	12	—	12	—	—	—	—
Grooms (b)	—	—	—	—	—	1(b)	—	1	—	—	—	—
Total No. 2 Group ..	1	—	1	4	2	13	—	21	1	—	—	—

	Officers.	W.O.'s.	Sergeants.	Corporals.	L/corporals.	Privates.	Boys.	Total.	Riding Horses.	Draught Horses (m).	Vehicles (m).	Bicycles (n).
<i>Details—continued.</i>												
H.Q. Wing :—No. 3 Group.										7	4	
Quartermaster	1	—	—	—	—	—	—	1	—	—	—	—
R.Q.M.S.	—	1	—	—	—	—	—	1	—	—	—	—
Butcher	—	—	—	—	—	1	—	1	—	—	—	—
Q.M.'s Clerk	—	—	—	—	—	1	—	1	—	—	—	—
Q.M.'s Storeman	—	—	—	—	—	1	—	1	—	—	—	—
C.S.M. (Wing)	—	1	—	—	—	—	—	1	—	—	—	—
C.Q.M.S. (Wing)	—	—	1	—	—	—	—	1	—	—	—	—
Clerk (Wing)	—	—	—	—	—	1	—	1	—	—	—	—
Storeman (Wing)	—	—	—	—	—	1	—	1	—	—	—	—
Pioneers (h)	—	—	1	—	—	8(h)	—	9	—	—	—	—
Police	—	—	—	—	—	2	—	2	—	—	—	—
Cooks	—	—	1	—	—	3	—	4	—	—	—	—
Transport Officer	1	—	—	—	—	—	—	1	1	—	—	—
N.C.O.s (k)	—	—	1	2(k)	—	—	—	3	1	—	—	—
Drivers (Transport)	—	—	—	—	1	12	—	13	—	—	—	—
Farrier	—	—	—	—	—	1	—	1	—	—	—	—
Saddler	—	—	—	—	—	1	—	1	—	—	—	—
Batmen (b)	—	—	—	—	—	1(b)	—	1	—	—	—	—
Grooms (b)	—	—	—	—	—	1(b)	—	1	—	—	—	—
Officers' Mess (l)	—	—	1(l)	—	—	3(l)	—	4	—	—	—	—
Serpts.' Mess (l)	—	—	1(l)	—	—	3(l)	—	4	—	—	—	—
Regt. Institutes (l)	—	—	—	—	—	3(l)	—	3	—	—	—	—
Postman	—	—	—	1	—	—	—	1	—	—	—	1
Dining Hall orderlies (l)	—	—	—	—	—	2(l)	—	2	—	—	—	—
Total No. 3 Group	2	2	6	3	1	45	—	59	2	7	4	1
H. Wing :—No. 4 Group.												
Band (f)	—	—	1(f)	1(f)	—	26(f)	—	28	—	—	—	—
Drums (g)	—	—	1(g)	1(g)	—	16(g)	—	18	—	1	1	5
Total No. 4 Group	—	—	2	2	—	42	—	46	—	1	1	5
M.G. Coy. H.Q.												
Captain	1	—	—	—	—	—	—	1	1	—	—	—
N.C.O.s (C.S.M. & C.Q.M.S.)	—	1	1	—	—	—	—	2	—	—	—	—
Clerk	—	—	—	—	—	1	—	1	—	—	—	—
Storeman	—	—	—	—	—	1	—	1	—	—	—	—
Cooks	—	—	—	—	—	2	—	2	—	—	—	—
Dining Hall Orderly (l)	—	—	—	—	—	1(l)	—	1	—	—	—	—
Batmen (c)	—	—	—	—	—	1(c)	—	1	—	—	—	—
Grooms (c)	—	—	—	—	—	1(c)	—	1	—	—	—	—
Total M.G. Coy. H.Q.	1	1	1	—	—	7	—	10	1	—	—	—
M.G. Coy. Platoon.												
Subaltern	1	—	—	—	—	—	—	1	1	2	1	—
N.C.O.'s (r)	—	—	2	4	2	—	—	8	—	—	—	—
Rangetakers	—	—	—	—	—	1	—	1	—	—	—	—
Scouts	—	—	—	—	—	4	—	4	—	—	—	—
Privates	—	—	—	—	—	10	—	10	—	—	—	—
Batmen-grooms (d)	—	—	—	—	—	1(d)	—	1	—	—	—	—
Total M.C. Platoon	1	—	2	4	2	16	—	25	1	2	1	—

	Officers.	W.O.'s.	Sergeants.	Corporals.	L/corporals.	Privates.	Boys.	Total.	Riding Horses.	Draught Horses (m).	Vehicles (m).	Bicycles (n).
<i>Details—continued.</i>												
Rifle Coy. H.Q.												
Captain	1	—	—	—	—	—	—	1	1	—	—	—
N.C.O.s (C.S.M.&C.Q.M.S.)	—	1	1	—	—	—	—	2	—	—	—	—
Clerk	—	—	—	—	—	1	—	1	—	—	—	—
Storeman	—	—	—	—	—	1	—	1	—	—	—	—
Cooks	—	—	—	—	—	2	—	2	—	—	—	—
Dining Hall Orderly (l) ..	—	—	—	—	—	1(l)	—	1	—	—	—	—
Batmen (c)	—	—	—	—	—	1(c)	—	1	—	—	—	—
Grooms (c)	—	—	—	—	—	1(c)	—	1	—	—	—	—
Total Rifle Coy. H.Q. ..	1	1	1	—	—	7	—	10	1	—	—	—
Rifle Coy. Training Platoon.(o)												
Subaltern	1	—	—	—	—	—	—	1	—	—	—	—
N.C.O.'s	—	—	1	2	2	—	—	5	—	—	—	—
Privates	—	—	—	—	—	24	—	24	—	—	—	—
Batmen (Orderly)(c) ..	—	—	—	—	—	1(c)	—	1	—	—	—	—
Total Training Platoon ..	1	—	1	2	2	25	—	31	—	—	—	—
Rifle Coy. Cadre Platoon (p)												
Subaltern	1	—	—	—	—	—	—	1	—	—	—	—
N.C.O.'s	—	—	1	2	2	—	—	5	—	—	—	—
Batmen (Orderly)(c) ..	—	—	—	—	—	1(c)	—	1	—	—	—	—
Total Cadre Platoon ..	1	—	1	2	2	1	—	7	—	—	—	—
Rifle Coy. Recruit Platoon (g).												
N.C.O.'s	—	—	1	2	2	—	—	5	—	—	—	—
Recruits	—	—	—	—	—	25	—	25	—	—	—	—
Total Recruits Platoon	—	—	1	2	2	25	—	30	—	—	—	—

REMARKS.

(a) *Signallers.*

1 Cpl. and 1 L/Cpl. for 2nd Line Cadre on Mobilization.

(b) *Batmen, Batmen-Grooms, Grooms.—**General Principle* :—1 Batman—2 Officers, 1 groom—2 horses, in *Peace*.

H.Q. Wing :—

Batmen (6).

C.O. .. .. .	..	..	..	..	..	..	1
2nd-in-C. }							
Adj. .. .. .	..	..	..	..	..	..	1
Sig. Off. }							
Med. Off. }	..	..	..	..	..	..	1
Intell. Off. }							
A/T. Off. }	..	..	..	..	..	..	1
Q.M. }							
T.O. }	..	..	..	..	..	..	1
R.S.M. .. .. .	..	..	..	..	..	..	1

Grooms (5).

C.O. ..	..	..	..	..	..	..	1
Adjt.	}	..	..	..	..	..	1
2nd-in-C.		..	..	..	..	..	1
M.O.	..	..	..	..	..	..	1
A/T.O.	..	..	..	..	..	..	1
T.O.	..	..	..	..	..	..	1

N.B. In War : These 11 batmen and grooms are employed as follows :—

Batmen 3 (C.O., Intell. Off., R.S.M.).

Batmen/Grooms 7 (2nd-in-C., Adjt., Sig. Off., Med. Off., A/T. Off., Q.M., T.O.)

Groom 1 (C.O.—2nd horse).

- (c) Coy. Comdrs. allowed 1 Batman (acts as orderly); 1 Groom.

N.B.—In War : Batmen act as such to 2nd-in-C. of Coy. Grooms act as Batmen/Grooms to Coy. Comdr.

- (d) M.G. Sec. Comdrs. share Batmen and Grooms : 2 Sections have each a Batman ; other 2 sections have each a Groom.

N.B. In War : These Batmen and Grooms become Batmen/Grooms.

- (e) Each Platoon Comdr. has a Batman who is trained as an orderly.

- (f) The Band are trained to perform the following duties in War :

With No. 1 Group.

Stretcher Bearers 1 Sergt., 20 Bdm.

Intelligence Section 1 Cpl., 6 Bdm.

- (g) The *Drummers* are trained to perform the following duties in War :—

With No. 1 Group.

5 Orderlies 5 Dmrs.

1 Bugler 1 Dmr.

With No. 3 Group.

Provost Sergt. 1 Drum Major.

Police 2 Dmrs.

A.A. Section 1 Cpl., 6 Dmrs.

For transfer to 2nd Line Cadre on Mobilization :—

A.A. Instructor 1 Dmr.

Bugler 1 Dmr.

- (h) The *Pioneers* are trained to perform the following duties in Peace and in War :

Water duties 2

Sanitary duties 2

Pioneer work 4

- (j) *Anti-Tank* Section: 1 Cpl. and 1 L/Cpl. for 2nd Line Cadre on Mobilization.

- (k) *Transport*: 1 Cpl. for 2nd Line Cadre on Mobilization.

- (l) The following *not required in war*, available for transfer to 2nd Line, or posting to companies, before proceeding overseas :—

Officers' Mess 1 Sergt., 3 Ptes.

Sergts' Mess 1 Sergt., 3 Ptes.

Regtl. Institutes 3 Ptes.

Dining Hall orderlies 6 Ptes.

Total 2 Sergts., 15 Ptes.

- (m) *Vehicles and Draft Horses.*

Limbers (2-horsed) =4

Each M.G. Section 1

$\frac{1}{2}$ -Limbers (1 horse shaft) =6

Signals 1

A.A. 1

Each Rifle Coy. (4) 1

Fd. Kitchens (2-horsed) =2

G.S. Wagon (2-horsed) =1

N.B.—A/T Group may require a vehicle, horse and driver.

Total 13 vehicles.

20 horses.

- (n) *Bicycles :*

Signallers 4

Intell. Section 4

Postman 1

- (o) 4 *Rifle Coys.*—To enable each company to turn out 1 platoon for training in camp, and so make up 1 composite company.
Some of the officers and all the non-commissioned officers of one company would be available on mobilization for transfer as cadre to 2nd Line unit; privates for completion of War Establishment of other companies.
- (p) Each company has 3 cadre platoons for training full number of leaders required in war. These junior commanders get their turn *in Camp* at commanding the Training Platoon; at other times they carry out Tactical Exercises (without troops), rehearse demonstrations, etc.
- (q) Each company has a recruit Platoon for training recruits. H.Q. Wing is kept up to strength by transferring trained men from companies.
- (r) A certain number (say 8, *i.e.* 2 per section) of "M.G." non-commissioned officers would be transferred to the 2nd Line unit on mobilization; their places being taken by fully trained privates—promoted.

THE FIRST TURKISH REINFORCEMENTS AT SUVLA, AUGUST 7TH-9TH, 1915

(*With Two Maps*)

THE small progress achieved by our IX Corps during the two days following the Suvla landing is generally recognized to be one of the chief reasons for the failure of the operations of August, 1915, to bring victory in Gallipoli. But if we had difficulty in advancing from Suvla Bay it would appear that the Turks found it by no means easy to bring the necessary reinforcements on to the ground in time to deny to us the heights east of the Anafarta plain. We know that they succeeded in doing so, and Lieut.-Colonel Haïry Bey, at that time Chief of the Staff to the corps or "Group" which constituted the reinforcement, provides us with an interesting account of the course of events from the Turkish side during these three fateful days. Selected as the subject of a lecture and discussion conducted by him at the Staff School in Stamboul after the War, and then published as an official text-book, the narrative has since appeared serially in a French translation.*

On the 6th of August the Turkish troops on the Suvla, or Anafarta, front consisted of three battalions and three field batteries under the command of Willmer Bey, a German officer. At the town of Gallipoli was the headquarters of Ahmed Feïzi Bey commanding the Saros Group, which was centred on Bulair and watched the coast at the head of the gulf. Extending from a point almost due north of Bergaz to the northern shore were the 7th, 12th and 6th Divisions in that order; beyond the last was a cavalry brigade disposed along the coast to Enos.

The three regiments of Halil Bey's 7th Division (19th, 20th and 21st) had the usual establishment of three battalions. To each of the 34th, 35th and 36th Regiments of the 12th Division was attached a battalion of gendarmes. The 6th Division consisted of only two regiments. The troops are depicted as anything but ready for active operations. None of them had been in the Saros

* *Revue d'Histoire de la Guerre Mondiale*, October, 1927, and July, 1928. The account actually covers the operations up to August 16th.

sector for a full month and practically all had come from the Anzac or Helles fronts battle-weary and much below strength. The solitary exception was the 35th Regiment, which had not yet been in action. Battalion strengths are given somewhat vaguely as from 300 to 800, with those of the 35th Regiment above the latter figure. Since their arrival in the sector the divisions had been called upon to send numerous drafts to the fighting fronts, receiving in exchange detachments which were in need of rest and reorganization. The coast-watching duties and work on the defences, however, interfered very much both with rest and training. The gendarme battalions in the 12th Division and some units of the 7th were armed with the converted Martini instead of the Mauser rifle, and there was a shortage of bayonets. The ammunition available consisted of 233 rounds per rifle and 13,080 rounds per machine gun.

The British attacks at Anzac (Lone Pine) and Helles on the 6th of August were regarded by Fifth Army headquarters as intended to distract attention from a fresh landing. Always fearful of Bulair, Liman von Sanders at once urged the Saros Group to increased vigilance. Then, at 1.45 a.m. on the 7th of August, Haïry Bey, Chief of the Staff of the Group, received a telephone message from the Army to say that the British had begun to disembark in the Anafarta region and ordering the reserve regiment of the 7th Division to move by Taifur to that front. Feizi Bey was ill, so, without disturbing him, Haïry Bey telephoned the order to the 7th Division at once. The Army having also said that another regiment might be required, Feizi Bey was soon awakened and informed of the situation. He took the precaution to order the 7th Division to concentrate in the south-western portion of its sector and the 12th Division to extend into Halil Bey's zone. In order to save time these orders were given over the telephone. Halil Bey asked for confirmation in writing, but was told sharply that he must act at once and the written word would follow.

At 5.45 a.m. the Army was informed that two battalions of the 20th Regiment and one of the 21st had left Bergaz at five o'clock for the Anafarta front. An hour later a further message from the Army ordered Feizi Bey and his staff to follow with the remainder of the two regiments of the 7th Division and the whole of the infantry (less the gendarme battalions) and artillery of the 12th. Only one battery of the 7th Division was to be taken. Orders were now issued for the 6th Division and the cavalry brigade to take over the whole of the Saros coast sector, the 7th Division troops to move at once *via* Taifur followed by the 12th as soon as the necessary reliefs had

been carried out. Feïzi Bey with Haïry Bey and other staff officers left Gallipoli by motor car at noon on the 7th of August, arriving two hours later at Yalova, where they were received by Liman von Sanders and Kiazim Bey, Chief of the Staff of the Fifth Army. With the aid of a small-scale map (1 : 100,000) Liman explained the situation to the newcomers.

The British had landed during the night in Suvla Bay, pushing forward towards Koja Chemen Tepe, which was defended by such troops as could be collected and remained still in Turkish hands. Kuchuk Anafarta and Turshun were probably lost already, so when the 7th and 12th Divisions arrived they must concentrate much further to the east with strong detachments covering the eastern exits of the two villages. When ready they would attack the flank of the British line of advance. The march of the 7th Division, which was in front, should be directed upon Uzundere, and the artillery and the 12th Division infantry must be hurried forward. A further reinforcement of one regiment and a battery would be ferried across from the Asiatic side of the Straits in the evening.

From this exposition it would appear that Liman von Sanders at two o'clock on the afternoon of the 7th of August was very ill informed as to the progress of events. Was he really under the impression that our troops which had been landed in and about Suvla Bay had been launched south-eastward in a direct attack upon Koja Chemen Tepe ?

The height in question, as we know, was to be the ultimate objective of our IX Corps ; but at this hour the corps had made a very small advance inland, with the exception of the left flank on Kiretch Tepe Sirt. It seems strange that Liman was not aware that the attack upon the Turkish left at Anzac was made by Birdwood's forces. Haïry Bey may have remembered little of this hurried conference—the officers were gathered round a small table in the main room of a police post, we are told—beyond the orders for the employment of the 7th and 12th Divisions ; but these orders certainly betray ignorance of the movements of our IX Corps. We never reached Kuchuk Anafarta, much less Turshun.

However, the narrative proceeds to relate that a staff officer was sent at once to the 7th Division with written orders for it to concentrate under cover south-west of Selvili, detachments to be pushed forward in the direction of the Anafarta villages. The Group commander and his staff then mounted and rode towards Koja Chemen Tepe, meeting a stream of walking wounded on the way. It was now decided to establish the Group command post

with Willmer's, which was situate about a mile-and-a-half west of Uzundere, and this was done about an hour after sundown. Willmer Bey supplied the following information :

The British had disembarked north and south of the outlet from the Salt Lake to the sea ; about Nibrunesi Point, Lala Baba and Hill 10 ; and at the coves south-east of Sulva Point.

The troops which had landed north of the Salt Lake—reported to be dry, consisting of only salt and sand at this season, and therefore offering no obstacle—had advanced south by stages against Yilghin Burnu.

A detachment had occupied Karakol Dagħ and was advancing up Kiretch Tepe Sirt which was still held.

A battery was reported to have come into action at Lala Baba.

For his part Willmer had two companies (now reduced by 25 per cent. through casualties) of the Gallipoli gendarme battalion on Kiretch Tepe Sirt ; and about Ismail Oglu Tepe there were the 2nd/31st Regiment, the Broussa gendarme battalion, a German machine-gun company, and forty troopers of the 12th Divisional squadron. On the heights east of Kuchuk Anafarta were three field batteries (12 guns) of the 9th Artillery Regiment. Between the left of Willmer's troops and the right of the 4th Division, which rested south of Azmak Dere, there was a gap of about a mile-and-a-half.

Willmer, it is stated, could not say definitely if the British had penetrated into the Anafarta plain. Feizi Bey accordingly sent mounted patrols forward into the plain, but did not hope to receive any information of value before the morning of the 8th of August. But the advance along Kiretch Tepe Sirt—where the British had at least two battalions, probably more, and were gradually bringing up reinforcements—had pressed the Gallipoli gendarmes hard. Their commander had clamoured loudly for support but continued to maintain a stout resistance. The remainder of Willmer's force had also been heavily engaged and its right, about Sulajik, seemed in danger of envelopment. Furthermore, the 4th Division on the Turkish right at Anzac expected to be attacked at any moment and asked urgently for reinforcements.

The prospect was by no means encouraging. Feizi Bey, we are told, considered four courses of action :

1. To attack simultaneously along Kiretch Tepe Sirt, towards Yilghin Burnu, and south of Azmak Dere : this involved great dispersion of force, with no superiority at any point.
2. To attack with both divisions north of Azmak Dere towards

Suvla Bay ; it was held that the British could counter this movement with part of their forces whilst still pressing on in strength to Koja Chemen.

3. To attack with both divisions south of Azmak Dere : there would then be the danger of losing Kiretch Tepe Sirt and the heights above Kuchuk Anafarta for it would be impossible to give the troops defending them adequate support.
4. To attack Yilghin Burnu with one division and with the other Damakjelic Bair, south of the Azmak Dere, where it would be able to cooperate with the 4th Division.

The last plan was decided upon, we are told, for the reason that the two attacking divisions would be able to afford each other support ; and a successful advance would drive the British back on divergent lines. North of the Azmak Dere the 12th Division, being the stronger of the two, would have as its objective Yilghin Burnu-Sulajik, whilst taking measures to cover its northern flank ; south of the watercourse the 7th Division—only two regiments strong but operating on a shorter front and with both flanks supported—would move against the British position at Damakjelic Bair. This arrangement suited the order of march of the Group, for the 7th Division, which was in front, would have farther to go in order to reach its position of deployment. The hour of attack could not yet be fixed, for the troops were still on the road and it was doubtful if they would arrive in a condition fit for immediate action.

Feizi Bey now discovered that the 4th Division, holding the right of the Turkish front at Anzac, could promise him little support beyond that of artillery fire. Exhausted and much reduced in numbers by heavy fighting, the infantry were reported to be incapable of assuming the offensive ; and Feizi Bey was constrained to allot the regiment and battery arriving from the Asiatic side to the 4th Division, on the condition that no further reinforcements were asked for from him.

The 7th Division was now nearing the scene of operations. At 9.35 p.m. Halil Bey reported that the 20th Regiment had a line of advanced posts on the reverse slope of the hills a mile-and-a-half east of Kuchuk Anafarta. In his message Halil gave some accurate information of the British progress. He said that they had reached the slopes of Yilghin Burnu, which we know was not absolutely in our hands until a later hour on this night. Willmer Bey, the report said, had a battalion in the trenches there and a battalion of gendarmes between Ismail Oglu Tepe and Scimitar Hill, and the infantry fight continued.

The night of the 7th/8th of August is described as a busy one for Feizi Bey and his Chief of the Staff, who were making every preparation for the attack it was hoped to deliver next day. They got no sleep and, as the previous night had been occupied in arranging the move from the Saros sector, they were badly in need of rest.

Preliminary orders issued by the Group at 1.30 a.m. on the 8th of August stated that the British attack towards Koca Chemen Tepe had been made by troops disembarked at the mouth of the Azmak Dere, where, of course, no landing took place. The 7th and 12th Divisions were charged with preventing the capture of Koca Chemen and as a prelude to their attack certain movements were to be carried out at once. The 12th Division was to occupy with one battalion each, and organize for defence, the heights Kavak Tepe and Tekke Tepe, north of Kuchuk Anafarta. Infantry patrols were to reconnoitre the Anafarta plain. The 7th Division, whilst concentrating behind its outpost line east of Kuchuk Anafarta, was to send one battalion to entrench the high ground near Point 183 which overlooked the Azmak Dere valley. Great stress was laid upon the necessity for concealment from hostile aeroplane observation, and every precaution was to be taken to avoid drawing the fire of the British warships.

By half-past ten on the morning of the 8th of August the 7th and 12th Divisions had reported the above movements completed. The troops under Willmer, who were in actual contact with the British, had observed little fresh hostile activity: it was certainly our misfortune that so little was accomplished on this day.

But the Turkish reinforcements were not yet to make their presence felt. Feizi Bey knew that, with the exception of the 36th Regiment, all the units had arrived but he wanted more information as to their condition. Both divisions had been in the trenches for a long time, and during their short tour of duty on the Saros coast they had had little opportunity for march training. The sudden movement to the Anafarta front was therefore likely to have tried the battalions severely. Those of the 7th Division had had to cover distances varying from eighteen to twenty-five miles; the units of the 12th had done at least twenty-seven, some thirty or even thirty-six miles. From Bergaz the whole column had used the one passable road as far as Uzundere, whence the forward communications were little more than tracks.

Aware that Liman expected him to attack upon the 8th, Feizi Bey had still to bring his troops within striking distance of the

British, so the 7th Division was ordered to march on Biyuk Anafarta without delay ; and to this written order a note was to be attached to say that the Army considered it absolutely vital for the attack to be delivered that day and all movements must therefore be accelerated. At the same time, about 11.30 a.m., the need for haste was impressed upon the 12th Division by telephone. Its commander, Salah ed Din Bey, had waited near Bulair to see the last of his troops on the move and had then travelled all night.

At 2 p.m. Feizi Bey conferred with his divisional commanders, whom he summoned to his command post. After the plans of attack had been explained in detail he inquired about the condition of the troops and found his worst fears realized. The men were very tired indeed ; there had been so much straggling on the march that most battalions had now only half their effectives present. Many of the absentees were coming on, but both Halil Bey and Salah ed Din Bey were of opinion that to attack at once, in full daylight over exposed ground, would be to invite failure. It might even result in something like disaster. We are told that Halil Bey put these observations in writing : one gathers that he was a very precise person.

On further consideration Feizi Bey and his Chief of the Staff agreed that it was inadvisable to attack that day. The approach march of about three miles which would bring the troops on to ground exposed to the fire of the British warships could hardly be accomplished without considerable loss ; a check would present to the British a favourable opportunity for counter-attack ; and if things went badly there were no reinforcements within call. Moreover, the afternoon or early evening was a disadvantageous time to launch an attack, for the sun would dazzle the eyes of the Turkish troops whilst clearly revealing their dispositions to the British : the morning would see these conditions reversed. Finally, it was held—unfortunately with only too much truth from our point of view—that the British were not pressing on so energetically as to call for an attack at all hazards however hasty and ill-prepared it might be.

Thus Feizi Bey determined to postpone his operation until daybreak of the 9th of August, and to use the night to bring his divisions forward unobserved to positions within assaulting distance of the British.

Before the divisional commanders left the conference a small supply of maps of the Anafarta region arrived from the Army. These had been asked for urgently as the Anafarta front was quite

unknown to commanders and staffs, but even now there were only about a dozen maps available. Soon afterwards two of Liman's orderly officers arrived to ask what plans had been made for the attack. In a telephone conversation which Feizi had with Kiazim Bey, Liman's Chief of the Staff, at this juncture the commander of the Group was told that Liman had no wish to interfere with his dispositions but wanted the attack delivered that day. It appears that this gave Feizi pause for thought, but he soon decided that postponement was inevitable. He telephoned to the Army the report of his divisional commanders on the state of the troops. But we are told that, worn out by lack of sleep and two days of incessant work after having been confined to bed with a high temperature, Feizi was not at his best. He was not able to explain to Liman in a sufficiently clear and forcible manner his reasons for postponing the attack.

Reports received later in the afternoon from Willmer's troops, the only forces as yet in contact with the British on the Anafarta front, disclosed no hostile movement of importance. At 6.30 p.m. an attack order was issued to the 12th Division. Daybreak on the 9th of August was the time fixed, and the objective was given as Yilghin Burnu—Scimitar Hill, the northern flank of the attack to be protected against a possible hostile movement from Kiretch Tepe Sirt. Under the orders of the division were placed the troops of Willmer's detachment in this area: the Broussa gendarmerie and the 2nd/31st Regiment, both at or near Ismail Oglu Tepe, and the three field batteries near Kuchuk Anafarta. Willmer was given command of the troops opposing the British on Kiretch Tepe Sirt.

Orders were given to the 7th Division by telephone and Halil Bey reported later that his troops were coming forward behind Biyuk Anafarta. There was a little difficulty in getting orders to Willmer's three batteries which now came under the 12th Division, but all seemed ready at last. At 10.15 p.m. the dispositions of the troops and the hour and plan of the attack were reported to the Fifth Army.

Feizi then retired to rest, but Haïry Bey received a telegram from the Army at eleven o'clock which announced a change in the command of the Group. Mustafa Kemal Bey was to succeed Feizi Bey, the latter being directed to return to Constantinople.

Mustafa Kemal—then of considerable reputation owing to his handling of the 19th Division on the Anzac front and to-day President of the Republic—arrived about 1 a.m. on the 9th of August and spent

three hours in making himself conversant with the situation and the orders for the attack. There was, of course, no point in issuing fresh orders. The operation was to proceed as planned by Feizi Bey, who took leave of the staff at about 4 a.m.

Now we come to a description of the events of the 9th of August which, for the Turks, saw a crisis safely past, their reinforcements from Saros having come into action in time. All three regiments of the 12th Division began to deploy about 4.40 a.m. The 34th Regiment, having come forward during the night from Turshun, sent one battalion towards Azmak Dere; the other two now began to advance from between Ismail Oglu Tepe and the line Kuchuk Anafarta—Scimitar Hill which formed their right boundary. Their ultimate objective was Yilghin Burnu. Next on the right was the 35th Regiment which, from the vicinity of Tekke Tepe, set two battalions to advance on Scimitar Hill and Sulajik. Its third battalion had been sent northward as a temporary measure to strengthen Willmer's reserve on the heights near Ejelmer Bay. The 36th Regiment was charged with the protection of the right flank of the division: one battalion had been detached to reinforce Willmer on Kiretch Tepe Sirt and the other two were behind Tekke Tepe and on the heights further to the north. Most of the batteries of the division (20 or perhaps 24 guns) had positions on the high ground east of Kuchuk Anafarta.

We are told that the 34th Regiment was in action about 5 a.m., and that by 7.45 a.m. its right battalion was engaged with hostile forces which had reached Scimitar Hill. This battalion suffered considerable loss through the slower progress of the 35th Regiment, which was not yet up in line on its right and so left its flank uncovered. There was also a gap between the left of the main attack of the 34th Regiment and its battalion on Azmak Dere.

The 35th Regiment, coming into the fight about 5.30 a.m. in the region of Baka Baba, progressed slowly but surely. During the morning two companies succeeded in linking up with the right of the 34th Regiment and assisted the advance on Yilghin Burnu.

At 8.30 a.m. it was reported that Yilghin Burnu had been retaken from the British. Liman, who had arrived at the Group command post west of Uzundere, is said to have been so pleased that he ordered the immediate promotion of all the officers of the troops credited with this success; but very much later it was learnt that Yilghin Burnu was still in British hands. As a matter of fact this position, known to us as Chocolate Hill and Green Hill, was

captured from the Turks late in the evening of the 7th of August and not relinquished until the evacuation. The mistake arose through an error in identifying the ground features from the map, and also through misleading information supplied by the gendarmes at Ismail Oglu Tepe.

Also under the impression that the left of the 12th Division had carried Yilghin Burnu, Mustafa telephoned his congratulations and ordered the division to swing left in close support of the 7th Division, leaving Willmer's detachment to cover the northern flank. But the commander of the 12th replied that his left, the 34th Regiment, far from being successful, was really in difficulties for the British on its front had been reinforced. He added that the 35th Regiment still lacked one battalion, sent to the heights near Ejelmer Bay, whilst the 36th Regiment was already deployed between Tekke Tepe and Kiretch Tepe Sirt. Having no reserves he was unable to give the 7th Division any closer support.

Salah ed Din spoke with reason. The 34th Regiment had just reported that it was hard pressed, and also that the British were landing more troops at Suvla. Losses were heavy, every company had been drawn into the fight and reinforcements were required. The divisional commander sought to draw back into reserve some of the 35th Regiment so that the front of the 34th, regarded as the vital point of the attack, might be sustained. He also collected one company of the 36th Regiment for the same purpose and sent forward the company of divisional engineers. Furthermore he ordered the 36th Regiment to cover its front with weak detachments and concentrate the best part of two battalions behind Kavak Tepe, but this could not be done. It appears that the British advance along Kiretch Tepe Sirt had pressed back the Gallipoli gendarmes and involved in the fight not only the battalion which had been transferred to Willmer's command but also the greater part of another of the 36th Regiment and the detached battalion from the 35th Regiment. Furthermore, at 2.30 p.m. the 36th Regiment reported that a British advance with two battalions on Kavak Tepe—Tekke Tepe had obliged the solitary company which remained at the latter point to deploy west of it. The remaining battalion had already pushed two companies forward on the right of the 35th.

Although the 34th Regiment had now got into close touch with its left battalion on the Azmak Dere the losses of the regiment had been so heavy that its advance ended in front of Yilghin Burnu. A complaint was afterwards made that the tardy provision for the

evacuation of the wounded had caused much unnecessary suffering and loss of life.

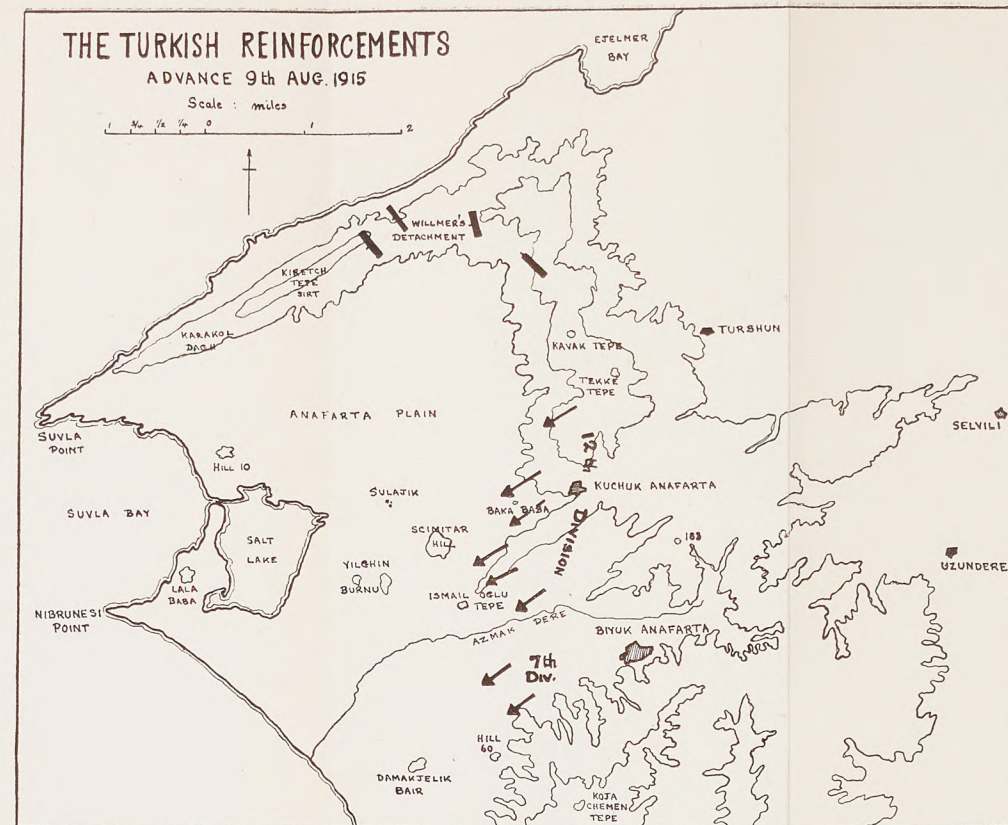
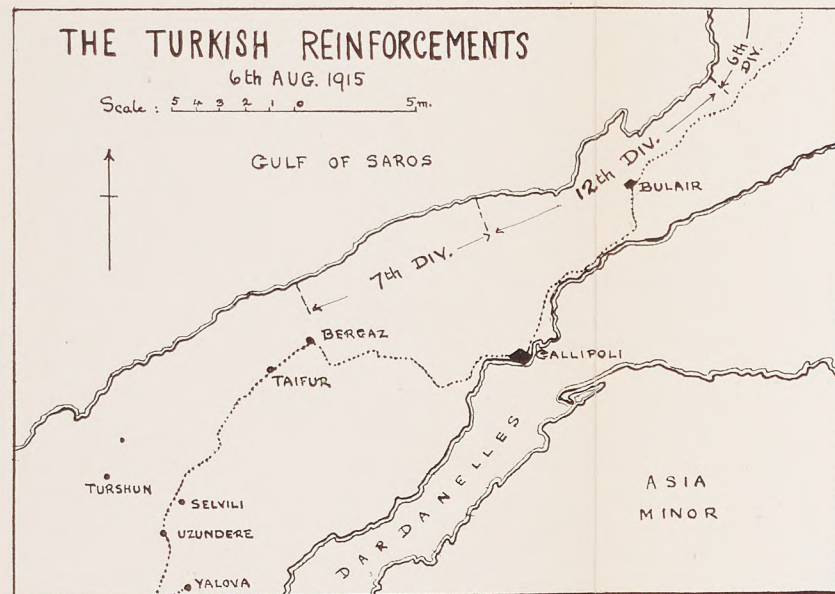
We are told that at 2.30 p.m. Mustafa Kemal was still under the impression that Yilghin Burnu had been re-captured, and was therefore satisfied with the progress achieved on this front. To avoid further loss, which he could ill afford, he decided to stop the attack. The written order, timed 5 p.m., said that the 12th Division would consolidate the ground won and repeated the error that the 34th Regiment was in possession of Yilghin Burnu. The 35th Regiment is described as having advanced as far as Sulajik where we know that they were stopped by our troops who had entrenched.

Now we turn to the 7th Division which had halted at night near Biyuk Anafarta. Its objective was Damakjelic Bair and the 20th and 21st Regiments—from right to left—attacked at 4.40 a.m. from the line of a watercourse north-east of Hill 60. Each regiment had two battalions in line and one in reserve: the battery was in position about one mile south-west of Biyuk Anafarta.

Although the right made some progress the whole line was eventually held up and suffered heavy loss. The nearest regiment of the 4th Division, holding the left of the Turkish front at Anzac, was ordered to advance in cooperation with the 21st Regiment, but the movement failed in the face of heavy machine-gun fire. The commanders of both the 20th and 21st Regiments became casualties; any many other officers were killed or wounded, and we are given a depressing picture of the situation as it was about noon. In spite of prodigies of valour the troops were unable to get forward. The ground in front was devoid of cover and all who exposed themselves were shot; the wounded could not be removed and their presence hampered the efforts of the front lines; all units were disorganized and most of the companies were commanded by inexperienced junior officers.

So, until evening, the two regiments remained as they were losing heavily and in growing fear of envelopment on the right. They were brought back after dark to consolidate and hold Hill 60.

It will be seen that the Turkish counter-attack did not accomplish all that was hoped from it. We know that the failure of the 7th Division, which encountered Birdwood's left flank installed on the Damakjelic Bair position, was not of vital importance to the Turks: but the advance of the 12th Division between Ismail Oglu Tepe and Tekke Tepe clashed with a succession of ill-coordinated attacks.



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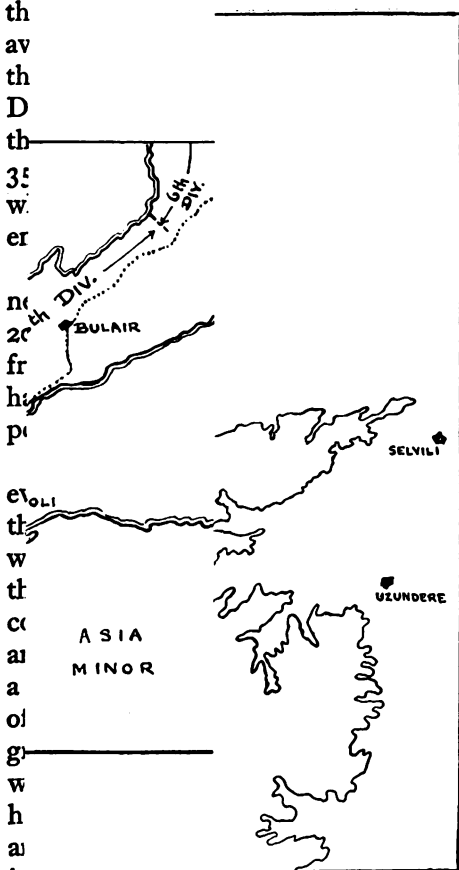
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[To face page 102.]

launched by portions of our IX Corps, resulted in an "encounter battle," and effectually denied to us the all-important heights east of the Anafarta plain.

Our delay in advancing inland from Suvla Bay and the delay in the employment of the Turkish reinforcements from the Saros gulf invite some interesting comparisons and contrasts. Feizi Bey's divisions were not too late on the morning of the 9th of August : but they might have been.

THE BATTLE OF SARREBOURG—VOSGES, AUGUST, 1914

BY A.F.P.C. AND F.A.S.C.

PART I

(*With Three Maps*)

THIS struggle, part of the great "Battle of the Frontier," is of considerable interest, as are the events leading up to it. It will be seen that the occurrences in this portion of the theatre of war nearly caused the abandonment of the Schlieffen plan, and actually did lead Moltke to divert troops, originally intended for the right wing, to Alsace-Lorraine, and to retain them there; moreover, he was persuaded to attempt double envelopment of the French as a result of early successes south of Metz. In this battle, too, the effect of ground on the time factor is clearly demonstrated.

It is not proposed to comment very fully, or to suggest alternative solutions in the light of present knowledge, but merely to give a narrative of events as nearly as possible as they appeared to the commanders at the time, with some remarks on outstanding features.

The French Plan (Map I).—The plan was to attack with the First and Second Armies between the Vosges and Metz, the Fifth north of that place, whilst the Third Army was to connect these two attacks and arrange for the investment of Metz; the Fourth Army was in reserve.

The First and Second Armies, as directed in Plan XVII,* concentrated in the area Nancy—Epinal—Belfort—Toul, covered by detachments close to the frontier and in the Vosges. The scheme also provided for a detachment of the First Army, consisting of the VII Corps and 8th Cavalry Division, to advance into Alsace in the general direction of Colmar by the Belfort Gap, the Schlucht, and the intermediate passes. This detachment crossed the frontier on the 6th of August and reached Mulhouse, but was forced to withdraw. It was then reinforced by three reserve divisions and some *Chasseurs Alpins*, renamed "The Army of Alsace," and

* See Appendix A.

reorganized preparatory to a resumption of the offensive. It is difficult to see what the object of this premature and isolated attack was ; it can only have been undertaken for purely political reasons.

The German advance through Belgium caused Joffre to modify his plans. The Fifth Army was moved north, the Third and Fourth Armies were put into its place, whilst the task of masking Metz was confided to a new formation—"The Army of Lorraine"—consisting of six reserve divisions. Joffre's intention was now to make his main offensive with the Third and Fourth Armies through Luxembourg, whilst the First and Second Armies were to make a secondary attack between the Vosges and Metz with the object of holding the enemy in Lorraine. The general advance was to take place on the 21st of August. The Third and Fourth Armies had now to be considerably strengthened, as a result of which the Second Army gave up the XVIII Corps and one division of the IX Corps.

Meanwhile, the First and Second Armies and the Army of Alsace received instructions to commence their advance on the 14th of August. The latter was ordered to recapture Mulhouse, and advance towards Colmar with the object of containing the Germans in Upper Alsace. The first objective of the First Army was to be Sarrebourg, the advance to be carried out with the right flank resting on the Vosges ; the Second Army was allotted, as first bound, the line Dieuze—Château Salins.

Topography.—The Vosges rise abruptly from the wide Rhine Valley, but fall away westwards to the Lorraine plateau in easier slopes. From the gap of Belfort they run in a northerly direction and joint the Hardt Mountains in the Palatinate. The southern portion, as far north as the Schlucht Pass, known as the "High Vosges," was considered by both sides to be too difficult for operations on a large scale. North of the Saverne Gap, the hills are much lower and are known as the "Low Vosges." In the centre, between the Schlucht Pass and Saverne, are the "Middle Vosges," and it was to this area that the right of the French First Army advanced. The "Middle Vosges" are practically split in two by the Bruche Valley, which runs in an easterly direction from Schirmeck to Molsheim in the Rhine Valley. From the southern end of the Bruche Valley, a low col gives access to the upper valley of the Meurthe about Saales. Out of the Bruche, two passes lead into Lorraine, the Col du Hantz and the Col du Donon ; the latter was the most important during the operations about to be described as three roads radiate from it, one to Sarrebourg and the others to the Meurthe Valley. Between the Donon and the Saverne Gap, a

distance of some forty kilometres, only one road crosses the mountains from east to west, namely, the road Obersteigen—Dabo—Hazelbourg, whilst the country between is very difficult and virtually impossible for formed bodies of troops.

In this part of the Vosges, the slopes are generally covered with tall trees, mostly coniferous, but the crests of the higher hills are often clear, and occasional open plateaux are to be found at a lower altitude. Though the main valleys are often of considerable width, there are defiles in which road, river, and sometimes a railway, are confined in a space of a few hundred yards. In some valleys, particularly the minor ones, the trees run down almost to the water-course and make observation and movement most difficult. The narrow roads and steep hills make the movement of horse or mechanical transport a problem of considerable magnitude.

South-east of Sarrebourg, the spurs of the Vosges run down to within a few miles of the town, but the country round that place is generally open. West of Phalsbourg and north of the River Sarre and the Rhine—Marne canal, the country is open and rolling, with compact villages and occasional large woods. The Sarre is not a great obstacle, but a few miles west of Sarrebourg and stretching as far as Dieuze on the west and the Rhine—Marne canal on the south is an area containing many large lakes interspersed with woods. East of the Moselle from Pont à Mousson to Nancy is the chain of low heights known as the Grand Couronné upon which the French had commenced to build permanent works in the spring of 1914, but the Germans do not appear to have been aware of this.

The French Advance (Map II).—The right of the First Army was to be protected by the XIV Corps holding the passes from the Bonhomme to Breitenbach and the Champ du Feu, whilst the XXI Corps held the Donon and the Bruche Valley. General Dubail, commanding the First Army, considered the Donon of vital importance and his instructions to the XXI Corps, dated the 13th of August, contained the following :

“ You will occupy the Donon as soon as possible, and will at once organize it as a great defensive position, extending it in the direction of the Bruche Valley, which the position must command.

“ I count upon you absolutely for the protection of my right flank. The success of this operation is vital and you will devote to it all your energy.”

The covering troops of the First Army in the Vosges had secured the passes of the Bonhomme and St. Marie as early as the 8th of August, and by the evening of the 14th, all the passes up to and

including the Donon had been secured. A few collisions took place, and there was some fighting in the Bruche Valley, where a detachment of the Strasbourg reserve was driven from a position astride the valley.*

The advance continued slowly for the next few days, but on the night of the 17th-18th of August, the XXI Corps, less the 13th Division, was moved via the Donon to the Abreschwiller area, and the 13th Division came under the command of the XIV Corps, whose left was extended to gain touch with it. By the evening of the 18th of August the French were in touch with the Germans all along the First and Second Army front (Map 3), the left of the Army of Alsace had reached Munster, and the First Army was situated as follows :

XIV Corps (Map II) :

27th and 28th Divisions.—Holding the Vosges passes from the Bonhomme to Breitenbach, the Champ du Feu, and thence to about Rothau in the Bruche Valley.

13th Division.—Holding the Donon position and the Bruche Valley between Wisches and Russ.

115th (R.) Brigade.—In Corps reserve about Fraize.

71st (R.) Division.—In the Corcieux area, but not at the disposal of the corps.

XXI Corps (less 13th Division) :

43rd Division.—Holding the high ground just east of St. Leon to Wallersthal.

Colonial Brigade.—In corps reserve, area Abreschwiller—St. Quirin.

XIII Corps :

26th Division.—Holding (excl.) Wallersthal to (incl.) Brouderdorf.

25th Division.—Holding (excl.) Brouderdorf to (incl.) Buhl.

VIII Corps.—Holding from (excl.) Buhl—Sarrebouurg—Dolving with the 16th Division. The 15th Division in corps reserve in the area Hesse—Xouaxange—Imling.

Cavalry Corps.—In Army reserve, area Gondrexange.

The XIV Corps front was a very wide one, and there was a gap of some ten miles between its right and the left of the Army of Alsace, as well as a smaller gap on the left between the Donon position and the right of the 43rd Division. It must be remembered, however, that the country on either flank of this corps was extremely difficult ; but the French made a grave error in not occupying the important Obersteigen Pass.

During the 18th the Germans began to move up the Ville Valley, and the French advance down the Bruche was checked by fresh

* The operations in the Bruche Valley were described in the *Army Quarterly*, April, 1929.

German troops, whilst from air reconnaissance it was learned that enemy troops of all arms were moving through Obersteigen on Dabo. From intelligence and other reports it appeared that only the German XIV Reserve Corps was opposite the XIV and XXI Corps in the Vosges, and that the main bodies of the Sixth and Seventh Armies were west of Sarrebourg. Dubail considered, therefore, that he was liable to be counter-attacked on the front of his VIII and XIII Corps and possibly on the left of the XXI Corps ; it also seemed that a German offensive in the Bruche was imminent. In order to improve his position, he ordered the VIII Corps to capture the high ground on the right bank of the Sarre between Reding and Sarraltroff on the 19th of August. It was now too late to block the Obersteigen Pass, but the 13th Division was ordered to direct as strong an attack on this place as was possible without weakening the Donon position, whilst the XIV Corps was instructed to concentrate in the Bruche Valley, its detachments at the Col de St. Marie and Bonhomme to be relieved by the 115th Reserve Brigade. On receipt of these orders, the XIV Corps asked for, and obtained, control of the 71st Reserve Division.

Events of the 19th of August.—The attack of the VIII Corps, carried out by the 16th Division, was stopped at the Sarre by artillery fire, and a strong counter-attack by troops belonging to the I Bavarian Corps. and by evening, the 16th Division had withdrawn to a line along the road Sarraltroff—Clocher. In the Bruche, the Germans advanced in strength, drove the 13th Division back on to the Donon position, and reached Rothau ; another column took the Champ du Feu, which overlooks the upper Bruche Valley, whilst yet another column advanced up the Ville Valley and attacked the detachments at Steige and Urbeis. There was a considerable amount of indecision at the headquarters of the XIV Corps during the day and various orders and counter-orders were issued. Finally, during the night of the 19th–20th of August, the 71st Reserve Division took over the Bonhomme and St. Marie Passes, whilst one regiment of the 115th Reserve Brigade moved to Steige, but the concentration of the 27th and 28th Divisions was not completed about Saales until very nearly mid-day on the 20th of August. Some of the troops had to march twenty-five miles during the night, and time and space calculations were hopelessly worked out by the staff of the XIV Corps. No attempt was made to carry out the Obersteigen mission.

Urged on by Joffre, Dubail, decided to disregard the possibility of a German counter-offensive and to resume his advance. He

ordered the VIII Corps to capture the Sarre bridges by a night attack and advance eastwards at dawn, while the Cavalry Corps was warned to be ready to pass through and attack "the enemy's right flank and rear." The XIV Corps was ordered to retake the Champ du Feu, strengthen the Donon position and block the Bruche Valley as far north of Schirmeck as possible. In the centre, the XXI Corps was ordered to advance on Haarberg; the XIII Corps to hold the line Plaine de Valsch—Brouderdorf—Schneckenbusch—Hill 330 (half a mile north of Hesse) lightly, with main bodies of divisions at Voyer and Nitting. It was the Army Commander's intention, in the event of the Germans advancing, to use these divisions to counter-attack the enemy as they debouched from the woods into the open country.

The Commencement of the Battle, 20th of August.—The 15th Division, which was in billets in the area Hesse-Xouaxange—Imling, was to pass through the 16th Division during the night of the 19th–20th of August and capture the bridges at Oberstinzel and Gosselming. The troops arrived at the position of assembly, Haut Clocher—Langatte, in an exhausted condition and after dawn had broken. There was considerable delay in forming up, and it was not until broad daylight that the troops reached the river. On the right, the enemy were found to be alert, and the attack did not develop, the troops dribbling back into Dolving; on the left, some progress was made at first and Gosselming was taken, but all attempts to advance on St. Jean de Bassel were beaten back by artillery and machine-gun fire. Finally, they were counter-attacked and driven back to their starting line. A brigade of the 16th Division had been ordered to attack Eich and Reding at dawn from Petit Eich, but the Germans appeared to be preparing to attack the latter place so the operation was postponed. After the initial counter-attack, mentioned above, the enemy made no move until 10.00 hours, when he began to advance on this front in strength.

In the Bruche, an inadequately supported and isolated attack at dawn on the Champ du Feu failed, as did an attempt, by the 27th and 28th Divisions, to retake Schirmeck by advancing astride the River Bruche in the afternoon. The Germans commenced to advance from Schirmeck against the Donon position during the morning and continued their attacks on the passes further south. During the day the Army of Alsace reached Mulhouse.

Comments.—It will have been realized that the First Army was hardly in a good position to meet a heavy attack on the morning of the 20th of August. The XIV Corps, largely owing to its premature

dispersion, had failed to prevent the Germans re-establishing themselves in the Bruche Valley and driving a wedge between the 13th Division and the rest of the corps, whilst a grave error had been committed in allowing the Germans to gain the Obsersteigen Pass which debouched on to the right flank and rear of the corps south of Sarrebourg. The VIII Corps was disorganized, and probably disheartened by its two failures, the latter of which had again brought out the well-known lessons as to night operations. Nevertheless, as will be seen later, Dubail had succeeded in achieving the object laid down for him, i.e. to hold as many Germans as possible in Alsace-Lorraine.

Operations of the Second Army (Map I).—Meanwhile, on the 19th of August, the Second Army, prolonging the left of the First Army north-westwards from the Lake of Gondrexange, had come up against the general line of the German Nied position.

On the 20th, the Second Army blundered into the Nied defences and met the attack of the German Sixth Army in a great encounter battle. By noon, the Second Army had suffered a heavy defeat in the neighbourhood of Morhange, and by nightfall had withdrawn some twelve miles. During the night it withdrew still further and exposed the left flank and rear of the First Army, thus creating a situation which was to have decisive effect on the Battle of Sarrebourg—Vosges.

The German Plan.—The German plan, as is well known, was to advance with five armies, the left pivoting on the fortified area of Metz—Thionville, the object being to outflank the French and then to drive them eastwards against their fortress line and the Swiss frontier. The protection of the left flank of these armies in the initial stages was to be entrusted to the Sixth and Seventh Armies which were to deploy on the line Metz—Saverne—Strasbourg—Mulhouse, Sixth on the right, the Seventh on the left.* These armies were placed under the command of Prince Rupprecht of Bavaria, who also retained command of his own army—the Sixth. It was laid down by O.H.L. that the protection of the left flank of the main forces would be effected by an advance to the River Moselle below Frouard, but, should the French advance in superior numbers between Metz and the Vosges, these armies were to fall back in such a way as to prevent the envelopment of a position to be prepared along the River Nied between Metz and the River Sarre and which would be manned by *Landwehr* and heavy artillery.†

* See Appendix B, Order of Battle.

† See Appendix C.

These instructions gave Rupprecht a difficult task, and he decided to adopt one of the following alternatives. Should the French advance between Metz and the Vosges, as was fully expected, the Sixth Army was to withdraw with its right in touch with the Nied position, whilst the left, reinforced by a corps of the Seventh Army, would eventually rest on Phalsbourg. The task of the remainder of the Seventh Army was to hold the Bruche Valley and prevent an enemy breakthrough west or east of the Middle Vosges. Later, it would be possible to assume the offensive from the two flanks of the salient Metz—Phalsbourg—Molsheim. Should the French not advance, it was intended to attack the Grand Couronné, whilst the remainder of the Sixth and Seventh Armies advanced to the River Meurthe between Nancy and St. Die, with small *Landwehr* detachments covering the flank in Upper Alsace.

The French advance to Mulhouse, which was stopped by *Landwehr* and detachments of the Seventh Army, and the effect of some collisions in Lorraine, seem to have led the army group commander to form the opinion that the French did not intend to make a decisive attack between Metz and Strasbourg, and, on the 11th of August, Rupprecht's headquarters estimated that there were only some four to five corps opposite the Sixth and Seventh Armies. The Seventh Army had been drawn towards the south by the French irruption into Upper Alsace, so with a view to an early offensive Rupprecht ordered the XIV Corps to move by rail to the area Blamont—Sarrebouurg, and the other two corps by road and rail to an area west of Strasbourg. Rupprecht now applied to O.H.L. for sanction to advance, but permission was not given, and instead he was warned to be cautious. By the 13th, however, Rupprecht had come to the conclusion that there were nine and a-half corps and four cavalry divisions on his front and that he would probably have to withdraw.

On the 13th of August, air reports were received which stated that trains had been seen moving south from Toul at intervals of fifteen minutes throughout the day. This was a piece of unintentional deception on the part of the French, as these were empty trains concentrating for the move of the XVII Corps and the Moroccan Division of the IX Corps to the north. These reports were doubtless one of the reasons which led to the over-estimate of French strength made by O.H.L. at this time, for, on the night of the 13th–14th of August, O.H.L. thought there were twenty corps and six cavalry divisions on the front of the Sixth and Seventh Armies and consequently came to the conclusion that the main

French offensive would take place in Lorraine. Moltke now made up his mind to throw overboard the Schlieffen plan because the decision would be obtained in Lorraine, where every endeavour should be made to defeat the French main army on the "field of battle." O.H.L. ordered Rupprecht to fall back with his Sixth Army, and attempt to draw the French into the salient Metz—Sarrelouis—Phalsbourg—Col du Donon. At a convenient time the flanks of the salient would be counter-attacked by the Sixth and Seventh Armies whilst the Fourth and Fifth would cooperate by advancing through the Nied position and Metz. The left wing was thus to become the decisive one, and reinforcements amounting to six and a-half *Ersatz* divisions, originally intended for the right wing armies, were ordered to concentrate in Lorraine.

The German Retirement.—On the 14th of August, Rupprecht ordered the retirement to the River Sarre and Phalsbourg to commence, and altered the detrainment area of the XIV Corps to Saverne.

The Seventh Army had commenced to move northwards on the 13th, whilst a detachment of the Strasbourg reserve division held a position astride the Bruche Valley about St. Blaise, with the remainder of the division at Triembach watching the passes west of Selestat. The French advance in the Bruche on the 14th of August * seems to have been a surprise, and resulted in the loss of the important Col du Donon and caused the XIV Reserve Corps to wheel westwards and halt on the line Colmar—Selestat.

On the 15th and 16th, the Sixth Army, covered by the III Cavalry Corps and rearguards, continued its withdrawal, and arrangements were made to reconnoitre and prepare the line of the River Sarre for occupation. During the 16th O.H.L. informed Rupprecht that the strength of the French opposing his group seemed to be decreasing very considerably. Moreover, it was observed that the French were advancing in a very slow and cautious manner; on the right they had not yet crossed the frontier, on the left they had reached the line Vic—Lorquin, whilst some small concentrations were reported further south. Rupprecht now gained the impression that the French after all did not intend a decisive offensive in Lorraine, and he therefore decided not to continue his retirement on the 17th. At the same time Moltke again changed his mind and reverted to the original plan of obtaining a decision by the wheel of the right wing through Belgium and Luxembourg, consequently the rôle of the forces in the Reichland was now to be merely the protection of

* Described in the *Army Quarterly*, April, 1929.

the left flank of the main armies. The *Ersatz* divisions had in the meantime begun to entrain for their new concentration areas, but Moltke refused to countermand their move, and they were eventually retained in Alsace-Lorraine.

The situation did not clear up on the 17th of August, and the French advanced slowly to the line Chateau Salins—Dieuze—Rorbach—Bisping—Langatte—Hesse—Hartzviller (Maps I and II). The corps of the Sixth Army rested during the day, and the III Cavalry Corps was withdrawn to Bendorf; the Seventh Army completed its concentration, XIV Corps in the area east of Sarrebourg, XV Corps at Wasselonne, and the XIV Reserve Corps about Molsheim. Rupprecht now decided to assume the offensive as soon as possible, this being, in his opinion, the only way of clearing up the situation.

Comments.—It has been seen that the instructions to the left-wing armies were designed to meet two main contingencies; they undoubtedly placed Rupprecht in a very difficult position, and much of the hawing which took place was the direct result of having to wait upon the movements of the enemy. The great difficulty was to decide which of the situations provided for had arisen. Rupprecht had no doubt a traditional predilection for the offensive, and naturally did not want to hang back whilst the Crown Prince's Army advanced, he could also point to the supposition that a premature withdrawal might seriously affect the movements of that army. In his war diary he records that he informed O.H.L. that it would only be possible to ensure the retention of French troops in Lorraine by attacking, and that Moltke agreed but would not give him a definite order to advance. Finally, receiving no order or *directif* from O.H.L., he took the bit between his teeth and started the offensive which gradually led Moltke to attempt the envelopment of both the French wings.

Moltke's decision to make the left the decisive flank, thereby giving up the Schlieffen plan, can hardly be justified, the "sack manœuvre" could only succeed if the French marched into the trap, if not, there would be the possibility of the weakened right wing being defeated in detail. When he again changed his mind, just before the armies were to move forward from their concentration areas, he had weakened the right wing to the extent of six and a half *Ersatz* divisions, and by allowing Rupprecht's offensive he increased the dispersion of his armies. Yet he was a disciple of Clausewitz who taught:

'The second principle of war is to concentrate our force as much as

possible at the point where the decisive blows are to be struck, to run the risk of being at a disadvantage at other points, in order to make sure of the result at the decisive point. The success at that point will compensate for all defeats at secondary points."

The Seventh Army was placed under Rupprecht, who also retained command of the Sixth Army. No group headquarters was formed. The same thing was done with the First and Second Armies on the other wing at odd times, and is a procedure which must be considered definitely unsound. It is noteworthy that the Russians adopted a system of "army groups" from the very first, and that on a smaller scale we made the same mistake as the Germans by placing one division under the command of another at the first and second battles of Gaza in 1917.*

Preparations for the Offensive.—Rupprecht's plan for the offensive was to hold the French by advancing with the Sixth Army against the general line Château Salins—Avricourt—Blamont, whilst the Seventh Army was to envelop their flank about Sarrebourg and through the Vosges. The bulk of the Seventh Army, with a corps of the Sixth attached, was to concentrate in the Saverne Gap, with strong detachments in the Bruche Valley; elsewhere in the Vosges, small columns were to advance by various passes in order to mislead the enemy. This plan was explained to Von Heeringen, commanding the Seventh Army, on the 17th of August. He agreed with it, but represented that his army required rest and would not be fully concentrated before the 19th, as the three *Ersatz* divisions allotted to him could not be ready before that date. He was prepared, however, for the initial moves to take place on the 18th of August. It was clear that if the enveloping movement was to take place at the right moment it was necessary for the Seventh Army to be given sufficient time to advance through the passes, but as early as the 17th of August it seemed that the French were withdrawing troops from Lorraine; it was essential to prevent this. Rupprecht hoped that the Vosges detachments, by advancing on the 18th and 19th of August, would be in a position to intervene decisively on the 20th of August, he therefore decided that the attack on the whole front should take place on this date.

On the night of the 17th-18th of August, Von Heeringen issued orders for the preliminary moves as follows (Map III):

XIV Corps.—Reinforced by heavy artillery from Strasbourg, to hold the line Reding—St. Louis, and gain touch with the Sixth Army.

XV Corps.—To commence to advance early on the 18th on Dabo via Obersteigen.

* See "Military Operations, Egypt and Palestine," vol. 1, pp. 298, 313, 332.

XIV Reserve Corps.—To advance on the evening of the 18th from the line Molsheim—Andlau au Val—Triembach. To cross the Bruche between Lutzelhausen and Fouday, and intervene in the battle by advancing in a north-westerly over the Donon. The 19th *Ersatz* Division and the 30th (Strasbourg) Reserve Division were allotted to this corps.

Army Reserve.—The Guard *Ersatz* Division to concentrate West of Saverne by the 19th of August; the Bavarian *Ersatz* Division to concentrate in the Selestat area and to protect the left flank in the Rhine Valley.

Events of the 18th of August.—The French advanced only a few kilometres, and on the left of the Sixth Army reached the general line Dolving—Sarrebouurg—Walscheid. The XV Corps commenced its advance by the Obersteigen Pass, whilst the XIV Reserve Corps started early in the morning instead of waiting until evening as ordered. The 28th Reserve Division of the latter corps reached Lutzelhausen in the Bruche Valley after a 25-mile march and drove the French back during the evening, the 26th Reserve Division was engaged on the line Grendelbruch-Hohwald, and the 30th Reserve Division advanced up the Ville valley. During the fighting parts of the French XXI and XIV Corps were identified.

The Eve of the Battle (Map II).—During the 19th of August the Sixth Army completed its preparations for the attack. In the Seventh Army area, the XIV Corps closed to its right and sent a detachment to Hommert with a view to keeping open the exit from the Vosges for the XV Corps; during the evening this detachment was relieved by the advanced guards of the latter corps who deployed about the line Hommert—Haarberg. The XIV Reserve Corps cleared the Bruche Valley as far south as Rothau, whilst the 30th Reserve Division pressed the French back towards Steige and Urbeis; the Guard *Ersatz* Division commenced detraining at Saverne and the Bavarian *Ersatz* Division reached Selestat.

The order for the offensive was given by Rupprecht at 19.30 hours on the 19th, and was repeated to O.H.L. The attack by the Sixth Army was to begin at 05.00 hours as a surprise along the whole front, but the zero hour for the Seventh Army was to be decided by Von Heeringen, and the I Bavarian Corps was placed under his command. Thus, on the morning of the 20th of August, as the French were preparing to continue their slow and limited offensive, the Germans attacked on a front of some sixty miles and a gigantic encounter battle ensued. It appears that neither Joffre nor Dubail suspected that a big offensive was imminent and the magnitude of the blow was a complete surprise.

The Sixth Army on the 20th of August (Map I).—It is necessary to give a short summary of the action of this army as its success greatly affected the battle of Sarrebourg—Vosges fought by the Seventh on the one side and the French First Army on the other.

The III Bavarian Corps on the right, II Bavarian Corps in the centre, and XXI Corps on the left, were to attack frontally against the line Delme—Coutures—Dieuze; echeloned to the left rear was the I Bavarian Reserve Corps detailed to protect the left flank; the III Cavalry Corps from the Bendsdorf area was to be prepared to intervene with two divisions on the right flank of the army in conjunction with the Metz Reserve.* This latter formation was to protect the right flank against attack from the Nancy bridgehead by advancing in the direction of Delme. The 7th Cavalry Division and three *Ersatz* divisions constituted the Army reserve.

The Metz Reserve succeeded in reaching the east bank of the River Seille between Cheminot and Nomeny but did not succeed in crossing, owing, it is stated, to the fire of heavy artillery from the French positions on the Grand Couronné. One cavalry division arrived during the morning, but the other spent most of the day marching behind the rear of the Army. The III Bavarian, II Bavarian and XXI Corps reached the line Delme—just north of Château Salins—St. Medard—Mulcey by nightfall, whilst the I Bavarian Reserve Corps reached the area Bisping—Rhodes—Fribourg (Map II). It was one of the divisions of the latter corps which became engaged with the French VIII Corps about St. Jean de Bassel during the morning of the battle.

The Seventh Army Plan.—Von Heeringen ordered the general direction of the attack to be between the Lake of Gondrexange and the Vosges as far as St. Quirin, the intention was to crush the right of the French southern wing, which, according to latest reports, reached to the south-east of Abreschwiller. Rupprecht had not laid down a zero hour for this army, Von Heeringen, therefore, anticipating some difficulty in deploying the XV Corps in the hills, ordered the attack to commence at 11.00 hours after careful reconnaissance and artillery preparation. Objectives were allotted as follows:

I Bavarian Corps.—Kerprich-aux-Bois (incl.) Sarrebourg.

XIV Corps.—Buhl—Wallersthal.

XV Corps.—Abreschwiller, and to gain touch with the XIV Reserve Corps.

XIV Reserve Corps.—Task unchanged, but decisive intervention was expected of this corps during the 20th of August.

Guard Ersatz Division.—In Army reserve, St. Jean Kourtzerode.

• See Appendix B.

The Seventh Army Attack.—The morning was misty and gave promise of a hot day as the Seventh Army made its final preparations.

Owing to the French attack on the right of the Army, the I Bavarian Corps ordered artillery fire to be opened at 05.30 hours on the French positions which were known to run along the edge of the woods west of the River Sarre and along the railway embankment north-east of Sarrebourg. Later, in view of the heavy fighting which was developing on the front of the I Bavarian Reserve Corps about St. Jean de Bassel, the I Bavarian Corps asked for and obtained permission to advance their zero hour to 10.15 hours.

I Bavarian Corps.—By 14.00 hours the Bavarians succeeded in reaching the western edges of the Sarrewald, but were held up in the eastern outskirts of Sarrebourg. Owing to early and optimistic reports the Army commander gave the line Gondrexange—Lorquin as the final objective for the day, and the right division actually succeeded in reaching the Rhine—Marne canal in the early hours of the 21st. The left division, however, had heavy street fighting in Sarrebourg and had to repulse a well-prepared counter-attack at 17.00 hours ; this delay prevented a further advance, and the troops bivouacked for the night south and west of the town.

XIV Corps.—At 11.00 hours, after a heavy bombardment, this corps attacked the French position Buhl—Wallerysthal which was situated in rear of an extensive wooded zone. The infantry emerged from the woods about 12.00 hours and found themselves face to face with what was thought to be the French main position at a time when artillery support was a matter of the greatest difficulty. The right division succeeded in reaching the road Sarrebourg—Buhl and pushed forward to Schneckenbusch, but a French counter-attack, well supported by artillery, drove them out of the village before nightfall. The left division had to advance without artillery support, and although by evening the high ground south of Walscheid had been reached, the men were exhausted, and the casualties had been severe. The Army commander also ordered this corps to push on further than its original objectives, but another advance without artillery support was found to be impossible, and it was therefore decided to dig in on the line reached and wait for the guns to be brought up with a view to continuing the attack next day.

XV Corps.—The Corps commander, who was not certain where the French position actually lay, had ordered the 30th Division to advance against Wallerysthal—Valette after careful reconnaissance and artillery preparation ; the 39th Division to gain touch with the 30th and advance on St. Leon and then on Abreschwiller.

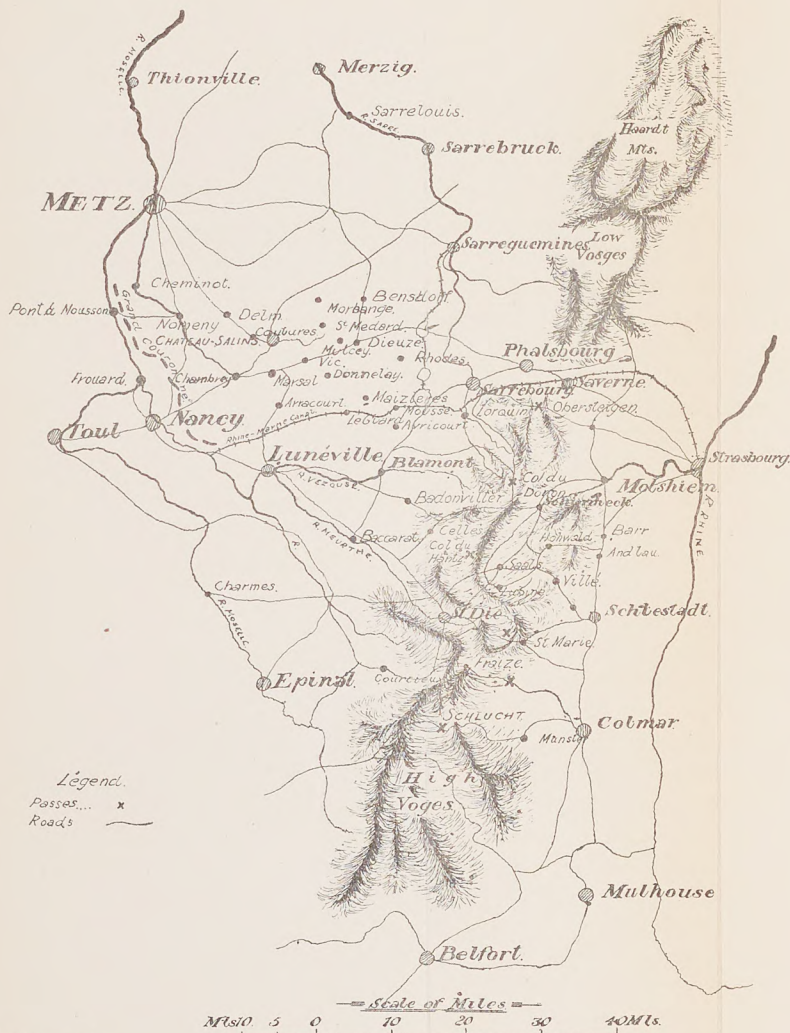
Early in the morning, however, the French 43rd Division advanced on this front and was only repulsed with difficulty, and although the French began to fall back at about 12.00 hours, they disputed every yard of ground and the Germans had heavy casualties in following them up. Owing to the hilly and wooded country the advance of the 30th Division was carried out under the greatest difficulties, artillery support could only be given by the few howitzers available, and the attack had to be carried out step by step and by constantly reinforcing the forward troops. By nightfall, the corps reached the line Walscheid—Soldatenthal, where the troops dug themselves in, in close contact with the French.

XIV Reserve Corps.—The rôle of this corps was the most important one, though probably the most difficult to carry out. Before intervention on the flank of the French would be possible the Col du Donon and the hill features surrounding it must be secured. The corps plan was to attack the Donon from the north-east from the line Wisches—Hersbach, and from the south via Grandfontaine. This task was given to the 28th Reserve Division. One brigade of the 26th Reserve Division was to remain in corps reserve south-east of Schirmeck, whilst the remainder of the division advanced up the Bruche Valley to hold off the French. This latter detachment had already occupied Rothau, but on advancing in the early afternoon on Fouday and Waldersbach, was met by the counter-attack of the French XIV Corps and stopped. They were able, however, to bring the French advance to a standstill. The attack of the group advancing on the Donon from the north-east was developed about 15.00 hours, but soon dissolved into a number of isolated fights in the heavily wooded valleys. In spite of the great heat and steep slopes, however, the regiments fought their way forward with the greatest determination to the foot of the massif; by 22.00 hours, and after the corps reserve had been put into the fight, two under-features, the Petit Donon and the Kelberg, were captured. Here the advance stopped amidst considerable confusion and disorganization, and owing either to this, or a panic, both the features gained were evacuated during the night. The group attacking from the south did not even succeed in capturing Grandfontaine, and consequently did not cooperate with the troops advancing from the north-east.

Farther south, the 19th *Ersatz* Division had been ordered to advance over the Hohwald and to support either the 26th Reserve Division or the 30th according to the situation. The latter division had been given St. Blaise as its objective, whilst the Bavarian *Ersatz*, now placed under the command of the XIV Reserve Corps, was to

SKETCH MAP 1

GENERAL MAP



A.C. Jenner, R.E.
 12.7.29.

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SKETCH MAP 2.



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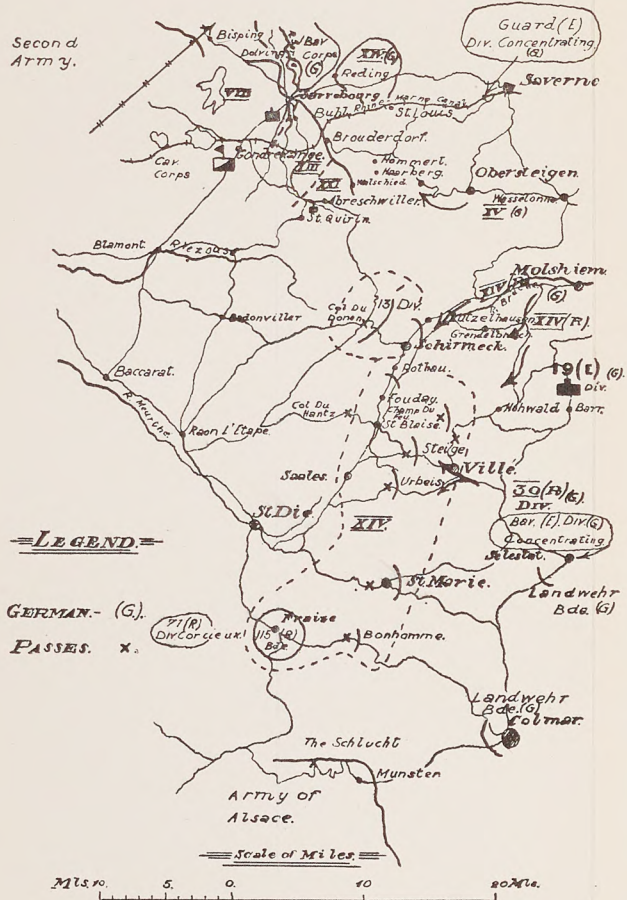
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SKETCH MAP 3.

== POSITION FRENCH FIRST ==

— ARMY FRONT. —

— EVENING, 18th AUGUST, 1914. —



A. C. JINER, R. E.,
347-29

[To face page 118.]



To face pag. page 118.

leave the protection of the Rhine Valley to the *Landwehr* detachments and to advance on the St. Marie Pass.

During the 20th of August, the 19th *Ersatz* Division advanced over the Hohwald, after suffering many casualties from the great heat in the narrow valleys. Its advanced guard became involved in the French counter-attack astride the Bruche in the afternoon, and in consequence of this and alarmist reports about the XIV Reserve Corps, the divisional commander ordered a withdrawal on Barr during the night. The 30th Reserve Division, however, reached Ranrupt by evening and remained there in close contact with the French. The Bavarian *Ersatz* Division advanced towards the St. Marie Pass and captured the outskirts of the village of St. Croix.

Summary and Comments.—The frontal attack with the advantages of surprise and easy country had met with startling success everywhere, but the envelopment of the French right wing through the Vosges had failed. The different timings may have affected this to some extent, and it is possible that the Sixth Army could still have secured surprise had their attack been staged at the same time as that of the Seventh Army. In surveying the progress made it will be seen that from Sarrebourg eastward the depth of the advance was small compared with that to the west; Rupprecht had not appreciated correctly the difficulty of coordinating and controlling large formations in such terrain, for the success of the plan was made to depend on the advance of two corps through the most difficult country on the battlefield. The German artillery rarely found opportunities for effective support, and in the case of the XIV Reserve Corps there were no howitzers available. Again and again the attacks dissolved into a number of isolated fights, a type of fighting for which the troops cannot have been well trained, in fact the German Official History laments the efficiency of the French Chasseurs in this respect and deplores the lack of similar troops on their own side.

Although the Germans were lucky in gaining the Obersteigen Pass without fighting, it appears that sufficient time was not allowed for the turning movement, and had the French even made a slight resistance at this pass the XV Corps could hardly have taken part in the battle on the 20th of August. In short, the difficulties of fighting in this type of country and its effect on the time factor had not been given sufficient consideration; moreover, the resistance of the French in this area seems to have come as a surprise both to Rupprecht and Von Heeringen.

End of Part I

WITH THE MARINES AT ANTWERP

A MEMORY OF 1914

BY ADRIAN KEITH-FALCONER

IN September, 1914, I was serving as Second-Lieutenant in the Queen's Own Oxfordshire Hussars, commanded by Lieutenant-Colonel Arthur Dugdale. Sent out at very short notice from England, we had landed at Dunkirk on the 22nd of September, and were attached as divisional cavalry to the Royal Naval Division, commanded by Brigadier-General Sir George Aston. The Division at present had only its Marine Brigade at Dunkirk, the two Naval Brigades being still in process of formation in England.

Needless to say, we were all thrilled at the prospect of active service, and the mere fact of being on French soil, within easy motoring distance of the enemy, went to the head like champagne. Exactly what we were going to do, we had not the faintest idea. There was some talk of guarding a naval aeroplane base, but this was generally rejected as too mean and spiritless an employment for Hussars, even Yeomanry Hussars, and the more popular theory was a diversion, in the shape of a raid on the German communications, by Allied troops operating from the neighbourhood of Lille, in which our good yeomen might play a truly Hussar-like part. Every day officers, English or French, were to be met bearing intelligence from Lille or Courtrai, or sometimes a report from the French Army farther south. Now and again Mr. Winston Churchill would appear suddenly from England in a destroyer to discuss plans with Divisional Headquarters at the appropriately named Hotel du Chapeau Rouge, and sometimes to lunch with the Q.O.O.H. at the Restaurant des Arcades. The latter establishment, in contrast with the somewhat grave and sombre interior of the Chapeau Rouge, befitting a divisional headquarters, was a scene of great gaiety and animation. Two or three of the officers obtained permission for their wives to visit them and the presence of these ladies added to the novelty of the situation.

The Regiment was extremely proud of its good fortune in being

the first Territorial unit to arrive within the battle area, and everyone was as keen as mustard. The *esprit de corps* was tremendous. It was therefore with a sense of dismay that, one evening a few days after landing I received a note from the colonel telling me I had been recommended as A.D.C. to the General and was to report then and there, with my kit, to the Chapeau Rouge. This was a bolt from the blue and the last thing I wanted.

Unfortunately Sir George Aston's health broke down a few days after I joined and Colonel (afterwards Major-General Sir) Archibald Paris succeeded him as G.O.C. The staff was more or less impromptu ; that is to say, no proper divisional establishment had yet been formed, and the few officers available divided the duties between them as circumstances required. Lieut.-Colonel A. H. Ollivant acted as Chief of Staff ; Lieut.-Colonel H. D. Farquharson ran the administrative side ; Major G. S. Richardson and Major E. F. P. Sketchley assisted both impartially.

A fleet of private motor-cars was attached to divisional headquarters for the use of the staff. These cars were all driven and provided gratis by their owners, who were made honorary 2nd lieutenants with an allowance of about £1 a day towards running expenses.

The Marine Brigade consisted mainly of reservists of over twenty-one years' service ; one platoon is said to have consisted entirely of pensioner sergeants and colour-sergeants. The remainder included 700 recruits who had never fired a rifle. (Official History of the War, "Military Operations : France and Belgium," Vol. II, p. 28.)

There was also at Dunkirk an aeroplane and armoured car detachment under Commander C. R. Samson, R.N., and fifty motor-buses, with their drivers enlisted as Marines. These buses had come straight off the London streets, and still displayed their familiar advertisements of tea and tobacco and theatres.

On the 29th of September, we moved 17 miles inland to Cassel, and established Divisional Headquarters at the Hotel du Lion Sauvage. Three battalions of marines were billeted in the town, while one had been sent the day before, at the pressing request of the Governor of Dunkirk, but not without some misgiving on our part, to Lille, there to facilitate the withdrawal of the French Territorials, scattered over the Department of the Nord. Some of these Territorials were the first French troops we had seen on landing at Dunkirk, elderly civilians of forty-five or thereabouts, not particularly impressive in their old blue uniforms and baggy red trousers.

The Oxfordshire Hussars went to Hazebrouck, 5 miles south of Cassel, and Commander Samson's armoured cars to Morbecque, 2 miles farther on. The 700 recruits were left at Dunkirk.

The situation was obscure. The German I and II Cavalry Corps were then approaching Lens, 30 miles south-east of Cassel, and the right of the German main line of battle was creeping steadily northwards. But on the 1st and 2nd of October no one knew exactly where or in what force they might be. The marines on buses and bicycles, and the yeomen on horses, patrolled the immediate neighbourhood of Cassel, while the armoured cars scoured the country farther afield. It was doubtless a time of some anxiety for the General in command, but full of interest and excitement for a junior officer.

On the morning of Saturday, the 3rd of October, I was woken by my servant at 6 a.m. with the news that everybody was busy packing up. During the night unexpected orders had arrived from London for the Brigade to go to Antwerp in support of the Belgian troops defending that great fortress, now almost at its last gasp. We were to entrain at once. As we drove down to the little station at Cassel the General seemed somewhat disappointed with the turn of events; I think he had been looking forward to an interesting military situation round Cassel in the near future, and the prospect of being shut up in Antwerp was less attractive. But he consoled himself with the remark, more than once repeated, "Well, it's all experience."

It was a long wearisome journey from Cassel to Antwerp. Though only about 115 miles it occupied 12 hours in the train. The nearer we got to Antwerp the more enthusiastic became our reception. Every station we passed through was thronged with cheering people. We at last reached Vieux-Dieu station, just outside Antwerp, at 10.30 p.m., and after General Paris had made a little speech of encouragement to the troops, they were marched off to their billets. Another train, bringing the battalion from Lille, arrived at 1 a.m.

Next morning at 6 a.m. the Brigade marched out to take up a semi-entrenched position opposite Lierre, 7 miles south-east of Antwerp, and soon afterwards the General went off to survey the position, leaving me in charge of headquarters. Presently Mr. Churchill arrived and left instructions that above all things the troops must be kept well fed and supplied with every little luxury obtainable, such as sardines, tinned salmon, cigars and cigarettes. To this end he had opened an account in the city on which General Paris was authorized to draw whatever sums he needed. To my inquiry what the Oxforas were doing the First Lord replied with the remark,

"You'll have a much better show here," an assurance that I somewhat doubted at the time, though it certainly turned out true in the end.

After a sketchy lunch headquarters was moved to a villa about a mile behind our trenches. All was still quiet on our immediate front, and the men were busy improving the wide, shallow trenches. But away on our right the booming of heavy guns continued all through the afternoon, slow and gradual, but never stopping, strangely impressive for those who now heard them for the first time.

The quiet did not last for long. By 6 o'clock that evening divisional headquarters was already being shelled and several men were wounded. The bombardment continued all through the night and grew heavier towards morning. About ten on the morning of Monday, the 5th of October, headquarters was moved back about 2 miles up the Antwerp road. The shelling never stopped all day and from 12 to 4 the position was critical, the Germans driving back the Belgians on our right. But a successful counter-attack re-established the line, and that evening things looked better.

But during the night the Belgian commander decided to make a further attack. The orders were not issued till 1.15 a.m. and did not reach General Paris in sufficient time for him to make the necessary preparations. He did not therefore feel justified in risking his small force—the only fresh troops in the line—on what seemed a rather hopeless enterprise. The Belgians consequently attacked alone and were at first partially successful, but the Germans presently counter-attacked and drove them out of the positions they held the night before.

It was now the morning of Tuesday, the 6th of October. The British line had been heavily bombarded all night, and there was a veritable hail of shells on brigade headquarters in the morning. The Belgians now began to give way all along the line on our immediate right, and our troops had to be withdrawn to a partially entrenched position some two miles in rear of the original line. All reserve ammunition and baggage was sent back within the inner line of fortifications.

All the morning the shelling continued. Along the road and across the fields on either side Belgian troops were retreating, broken, weary, dispirited. A Belgian staff officer halted one such party on the road and tried to turn them back. He reasoned with them, he pleaded, spoke of Belgium in her hour of agony, all to no avail. These men were beyond all argument or appeal. For three weeks

they had been in the trenches, under almost incessant fire, for days now with hardly food or sleep. Their force was spent, their spirit gone.

About 1 p.m. the shelling ceased. The Marine Brigade, now reinforced by the two Naval Brigades which had arrived from England that morning, held their new line all day, and were no longer pressed. But it was obvious that we could not continue to remain in this exposed position much longer. About ten that evening General Paris visited the General commanding the 2nd Belgian Division. His headquarters was in a little estaminet by the roadside. Within was no glittering and resplendent staff, surrounded by light and warmth and comfort, but a few weary dejected men, gaunt and haggard for lack of sleep, worn out by ceaseless strain and disappointment. A dim oil lamp lit up the squalid room, and a heap of straw for the General lay in a corner.

General Paris discussed with his Belgian colleague the arrangements for a withdrawal and then returned to his own headquarters, which we finally evacuated at 11 p.m. During the night a long conference was held at our old headquarters at Vieux-Dieu, the upshot of which was that all the troops were ordered to retire within the inner line of fortifications, the movement to begin at 3 a.m. No one got any sleep that night.

Next day, Wednesday, the 7th of October, a strange calm reigned everywhere. It was a lovely autumn day, and though one knew only too well that the Germans were busy moving up their great howitzers, it was a blessed interval of peace. Not a shell was to be heard. In the city the shops and cafés were still open and the people were going about their business. But many had already left, and of those who remained little groups with anxious faces gathered everywhere to discuss the situation. For none knew the truth or what was best to do. Meanwhile the General and staff were busy with plans and preparations, and the tired troops were strengthening their positions. So the long day passed.

At 11 p.m. the bombardment of the city began. Hitherto the Germans had not used their biggest guns, and the attack on the outer defences had been supported by an immense weight of high explosive and shrapnel from pieces of smaller calibre. But now the huge Austrian howitzers, which had become invested with almost legendary powers of destruction, as of some great antediluvian monster, were brought into play. For upwards of thirty hours the bombardment continued, at the rate of some 300 shells an hour, earthshaking, incessant, remorseless. The marvel is that not more

damage was done, that one stone was left upon another. But spread over such a vast area the shelling, violent as it was, could not wipe out a city in a day as a concentrated barrage wipes out a line of trenches. Most of the population had left, or were leaving, and the remainder took refuge underground. Nevertheless, many houses were destroyed or caught fire, and the flames luridly lit up the evening sky, blackened by the dense masses of smoke rising from the burning oil tanks on the banks of the Scheldt.

About five o'clock on the evening of Thursday, the 8th, it was decided to evacuate the city. General Paris himself reported this decision by telephone to Mr. Churchill at the Admiralty. Almost simultaneously one of his staff, having gone to the telephone to make the same report to Lord Kitchener, before he could begin, received a message from the War Office ordering all British troops to be withdrawn across the Scheldt that night. (Official History of the War, II, 57.) This is not the place to discuss whether the city could have been held or not, but more than one of the battalion commanders that night expressed great surprise at the order to retreat, and declared that they could have held on with ease for much longer. The real danger lay in the threat to our line of retreat across the Scheldt. On the evening of the 7th the Germans had forced a passage 25 miles south-west of Antwerp, and thrown more than a brigade across. This, combined with the continual evacuation of the forts by the Belgian fortress troops, made our withdrawal inevitable.

There were two bridges over the Scheldt, about two miles apart, the one nearer the city being a bridge of boats. I was instructed to take the three lorries containing the staff's baggage, maps and office papers across the latter, and make my way to Zwynndrecht, three miles out of Antwerp, on the Ghent road. I had two small Belgian lorries and a big British one of the familiar type we all know. The Belgian officer in charge of the bridge refused to allow the latter to cross, saying it was too heavy. This would never do; the lorry was full of secret and important papers and must be got across somehow. But the possibility of breaking down the bridge and cutting off the retreat of at least half the British force was—to put it mildly—a disturbing thought. However, there seemed no alternative; I did not know of the existence of the other bridge, or if I did, there were reasons why I should not use it, I forget now; so I ordered the driver to edge his way into the queue and follow the others over, regardless of the Belgians. The whole structure groaned and creaked alarmingly, but at last, after many anxious moments, we got over safely.

The roads were blocked with soldiers, British and Belgian, cavalry, artillery, and infantry ; with civilians of every age and class, rich and poor, old and young, driving carts, pushing barrows, carrying their poor belongings on their backs ; with military and civilian transport of every description, from great 3-ton lorries to children's prams. The resulting congestion can be imagined. Strict orders were given forbidding attempts to overtake and pass the column, but nothing could prevent the panic-stricken occupants of civilian motor cars from doing so, and constant blocks occurred in consequence.

We halted at Zwyndrecht, which had been fixed as the divisional rendezvous, and the General told the men they had only a few miles farther to go before they reached the railway, where trains were awaiting them.

From Zwyndrecht we dragged on slowly with endless halts to Beveren Waes, where the trains were supposed to be. It was now 1.30 a.m. Nothing happened. We stood or lay in the streets for what seemed hours. What had happened to those trains ? About 3 a.m. a young A.S.C. officer came along telling all the buses and lorries to start their engines. He said that the Uhlans were only 5 miles behind, and that we were going on at once and were to cross into Holland if necessary. The truth, however, was that the General had had a message from the stationmaster at St. Nicolas, a few miles down the line, saying that a column of 10,000 Germans was marching in that direction. Fortunately there is another railway running westwards, closely following the Dutch frontier, and this was now our only hope. We set off again at 3.30, along miserable little country roads, and the congestion became worse than ever. Moreover, the troops were now thoroughly exhausted, and progress was very slow. The head of the Division eventually reached the railway at St. Gilles Waes about 6 a.m. Four trains, containing eight battalions, were loaded and dispatched between 7 and 9 a.m. and arrived at Ostend in safety after an uneventful journey.

Not so the remaining four battalions. A word must be said about their misadventure, but as the present writer did not share in them, he can add nothing fresh to the account already given in the Official History of the War, Mr. Douglas Jerrold's "Royal Naval Division," and General Sir H. E. Blumberg's "Britain's Sea Soldiers."

Owing to a mistake by the officer charged to deliver General Paris's orders three battalions of the 1st Naval Brigade and one battalion of marines did not receive the order to retire until several

hours after the rest of the Division had started, and did not get over the Scheldt till about 2 a.m. on the 9th. Various further causes of delay occurred en route, and when the three naval battalions reached St. Gilles Waes in the course of the afternoon, the men were utterly exhausted; they were also almost without food or ammunition. Their commander, hearing that his line of retreat was now blocked by a strong German force, decided to lead them across the frontier to Holland, where they were interned. Only one determined sub-lieutenant with about 40 men, after being put under arrest for questioning the order to cross the frontier, hung back till his superiors were safely over, and then got his men past the Germans unobserved; for this gallant exploit he was awarded the D.S.C.

The fate of the Marine Battalion was somewhat different. Being the rearguard, it arrived at St. Gilles Waes last of all and was told there were no more trains. Pushing on to the next station the battalion found room on a train already crowded with refugees, but had not proceeded far when it was fired on by an enemy force. The driver and fireman promptly deserted their engine, but two men of the Naval Brigade restarted it. Shortly after, however, the engine was derailed and heavy fire opened on the train from all sides. Darkness, and panic among the refugees, added to the difficulty of detrain-ing and assembling the marines for attack, and of the thousand or so on board, only about 100 succeeded in fighting their way through; the remainder, including 600 stragglers from the Naval Brigade, were captured.

If this very inadequate account of an exciting and little known adventure should encourage any survivor to relate his personal experiences, it will not have been written in vain.

From Ostend the Naval Division went to England to refit. It had lost approximately 2,500 of its original strength of 10,000, but only a small proportion of these casualties were killed. If it had not saved Antwerp, it had at least delayed the German descent on Ypres and the Channel ports by at least a week and given us an invaluable breathing space in which the newly arrived 7th Division could align itself on the left of our Army.

After Antwerp I rejoined my Regiment at the front and so ended my short period of service with the Royal Marines. But to have served on even one expedition with that most distinguished corps remains a treasured recollection and an honour not lightly valued.

A DEMOCRATIC ARMY FOR INDIA'S DEMOCRACY

BY COLONEL AUBREY O'BRIEN, C.I.E., C.B.E.

THE British intention, announced in 1917, is to lead India on towards the progressive realization of self government. When conditions appear peculiarly unhopeful, and some modification of programme might reasonably be expected, Lord Reading, the ex-Viceroy, or Lord Irwin, at present on the Viceregal throne, comes forward to explain to the world that a British promise is a British promise. For all that it is occasionally worth while to study the magnitude of the self-appointed task. A re-examination of the Montagu Chelmsford Report shows that its authors were working on the possibility of the Hindus abandoning their caste system and all that Hinduism of the present day stands for. They expressly hoped that the present of the power to vote would call forth nationhood instead of caste, and would make men regard each other as neighbours and not as the wearers of some caste insignia. They also, despite quoting Lord Dufferin in detail with regard to the two mighty political communities as distant from each other as the poles asunder in their religious faith, their social organizations, their historical antecedents and their natural aptitude, were optimistic with regard to the fusion of Hindu and Muslim. Mr. Montagu and Lord Chelmsford were so obsessed by the belief that self government for India within the Empire was the highest aim which her people could set before themselves that they expected the very vision would lift men up to resolve on things that seemed impossible before.

It is not really surprising that everything has not gone on swimmingly. The authors distinctly stated that they had no intention of interfering with questions of a religious nature, but by the introduction of the ballot box to two communities, one of which believes in the equality of man and the other does not, they certainly hoped that Hinduism would lose part of its most prominent features. Still, whatever the views of the Hindus themselves on the abolition

of caste, or of Hindus and Muslims on the subject of unity, the authors of the Report did discuss these subjects, and the faith that was in them enabled them to believe that such difficulties were trifling and would disappear. They also discussed at moderate length the reactions of their policy on the Indian States, but proceeded to leave the subject severely alone until it has now been forced upon public notice by the States themselves.

The above three points have been under the consideration of the Simon Commission and Indian States Committee, though as separate affairs. There is, however, a fourth point of prime importance which must be dealt with if India is ever to attain to a self-governing democracy, namely, how such a democracy can raise an army to defend itself. The Montagu Chelmsford report merely alludes to the claim of the politicians that all Indians should have the right to bear arms, and that there should be more British commissions for Indian soldiers. The main question has not been touched at all during the last ten years, and yet it is one for very serious consideration. If there is ever to be an Indian nation instead of the conglomeration of peoples that till now, by Indian wishes and Indian organization, have been kept well apart from each other, there must be an army organized on national lines. That there has never been a national army in India before is beside the point. There has never been an Indian nation in India before. The conception is entirely a British one, and the soul of the new nation is derived from the English language, the only method of communication.

It is very easy for monarchs to raise a mercenary army, and they are obliged to do so if they are to control peoples to whom they are aliens. The hordes that poured down from Central Asia into India contained various mixtures of adventurers whose only link was that they were out for the spoil of the infidel. Wave followed wave, Afghan and Turk, Mongol and Persian. Nadir Shah, for example, had in his army, besides his Persian fellow countrymen, Kurds, Georgians, Turkomans and Afghans. To the rulers that established themselves there came a steady flow of recruits of strong men from the cool climates above the North-Western border. Another source of supply came from over the seas, which were commanded by the Arabs till Portuguese, Dutch and British found their way round the Cape. Even later, when the European powers were weak owing to disputes among themselves, Arabs were again in a strong position. Consequently a continuous supply of soldiers was to be obtained from them, from the Abyssinians, and less fortunate

Negroes who started originally as slaves. The number of Indians that fought for the soil of India was always limited by the rules of caste. When the fighters were beaten, the other castes submitted to the successive conquerors. The doctrine of Karma accounted to them for the hardships that they had to endure, and left them without ambition to enforce a change.

Under the influence of Aurangzeb's fanaticism Hindu powers did arise again. Mahrattas of the south and Sikhs of the north fought their way into prominence, and Rajput Princes shook off their dependence. By that time Europeans had come to India, and apart from those in organized armies and navies there were many playing for their own hands. Reckless and renegade Europeans as well as men who had been taken prisoners fought by sea for the Arabs or for the Mahratta, Angria, while others joined on land the forces of the warring Indian States. The French power as such was defeated at Wandiwash in 1760, but numerous adventurers remained in the country to fight and to scheme on behalf of native rulers. With them or against them were British, German, American, Swiss, Dutch and Portuguese. Such men were welcomed as mercenaries, and mainly on account of their skill in enforcing discipline were valued so highly that even petty chiefs found it necessary to engage them. The Nizam, Mysore, the Peshwa, Sindia, Holkar, Jaipur, Bikanir, Jodhpur, the feeble Moghul Emperor, and his feudatories like the Begam Somru, all had white officers in their armies.

Sindia got hold of a Frenchman, De Boigne, and with his aid re-established Mahratta control over the imperial capital, which had been lost after the defeat at the hands of Ahmed Shah Abdali at Panipat in 1761. De Boigne's officers were European, and his army that fought on behalf of the Mahrattas was not Mahratta. He recruited his men from Rohilkand, Oudh, and the Doab between the Ganges and the Jumna, and from Pathans and other free-lances from across the Indus. George Thomas, the wild Irishman who established a principality in Hariana, did so mainly with the aid of Pathans and Rohillas, the better to deal with his near neighbours the Sikhs. The Nizam had a powerful force under M. Raymond ; Mysore had 550 French officers and men ; Holkar's disciplined force under Chevalier Dudreneé lasted for a time ; while the other Mahratta chieftains who are left to this day in control of areas far away from the land of Maharastra, were as much supported by aliens from Europe, Central and Western Asia and from Africa as by their own tribesmen.

The British gradually made themselves masters of the country with the aid of their own troops from overseas, and of disciplined soldiers of the country drawn from all classes of the men who had proved themselves able to fight. For a time, the lawless men, released from the defeated armies, spread over the country committing unspeakable outrages, but the Pindari menace was crushed and the land had peace. It was necessary later on to tackle the Sikhs, who had Europeans in their service as well as Muhammadans. After this the supply of mercenaries from overseas was stopped, and since the British advanced their line to the north-west frontier there has not been a single repetition of a successful invasion. Throughout all the period of struggle the great mass of the Indian population remained quiescent, accepting each conqueror in turn. There were no Indians in the army of the old Sultanate of Gujrat, just as there were no Bengalis to oppose Clive at Plassey. At the battle of Buxar Mir Kasim had 5000 Afghan horse to support him against Major Hector Munro.

The British, after they had taken charge of modern British India, recruited for the three separate armies of Bengal, Bombay and Madras soldiers of the classes whose valour had been attested. They were especially keen on those who had recently proved their value in warfare on the other side. Gurkha hill-men from Nepal, Sikhs and Punjab Muhammadans were thus welcomed, though their chance on a big scale did not come until the Mutiny broke out. In early times the descendants of the old Arab, Persian, Afghan and Abyssinian adventurers and their half-caste descendants were recruited as well as men of low castes, but gradually a period of Brahmanization set in. After the Mutiny there was not only a great reduction in the ranks of the Pandys, but the proportion of the non-Indian element was largely increased. The British troops from the pre-Mutiny figure of 39,500 to 311,000 Indians are now 60,000 to 160,000, and there are 20 battalions of Gurkhas from Nepal within the latter total. Of the remainder Punjabis of all kinds, Sikhs, Muhammadans and Hindus, now form half.

Despite these changes, the Army is still one of the most potent agencies for the maintenance of caste, and is to this day based on the principle that India is not a nation but an agglomeration of nations. With the Mutiny still in its memory it organizes the troops so that there should be little union amongst them except by the link of their British officers. Regiments are arranged into a mixture of class companies with the component parts alien to each other. This situation is quite sound if the force is treated as a mercenary one

engaged by the British, but is hardly consonant with the theory that the army should be an Indian army, prepared to fight for the Indian nation which civil politicians hope to create. There are military handbooks, showing in detail the limited classes that are now considered suitable for warfare. The various tribes and races are considered separately, and information is given about the castes within them who may be taken, and those who are either too high or too low in status to make soldiers of the type required. Certain high castes are not in favour, not because Brahmans led in the Mutiny, but because they upset discipline with the claims to precedence and special consideration which they both arrogate and receive. Syeds are unpopular for very much the same reason. Low-caste men are not taken into the army except in the form of certain Adi-Dravidians of the South, and from among the Sikhs. In theory there should be no caste among the Sikhs, but in practice the number of subdivisions is very great. The lowest caste of all is accepted in considerable numbers under the name of Mazhabis, but the number of leather dressers and other inferior castes in the army is very limited.

The field of recruitment has been steadily reduced, and classes have been scrapped which used to be counted as fighting material in the past. For a time during the war the restrictions were adhered to, and the pressure on the clans and castes approved of was very severe. Later on there was some relaxation, though it was mainly in the direction of taking neighbours of those who had already been tested, but directly the war ceased there had naturally to be a reduction, and such reduction was as naturally effected from the newcomers. The Indian Army is again as small and as narrowly distributed as ever. One-half is obtained from a minority of the 24,000,000 people in the Punjab, the classes even in that province that are not allowed to recruit being more numerous than those that do send their quota. One-sixth is composed of Gurkhas, splendid men who have naught to do with British India; and one-third, or about 50,000 men only, are raised from the remaining 300,000,000 people of India. Actually the total clans from whom men are taken—Mahrattas, Rajputs, Jats, Garhwalis, Tamils, Adi-Dravidians, Christians, and a few Burmese—do not approximate to 100,000,000, and it is certain that over 200,000,000 people belonging to separate social entities from the soldier clans have no military links. Four whole provinces out of the nine, and vast areas within the other five, stand apart altogether from connection with the army.

This condition of affairs is quite reasonable if the army in India

is considered to be a British army, an army to assist the British soldiers to maintain the British authority within India as well as to protect Indians from internal trouble and external attack. It was as such that the Indian portion of the army worked in the past on behalf of the area that was at any moment under the control of the British. There are some who think that the present system is unnecessarily inelastic, and that more might have been achieved during the Great War if more classes had been available. However, the system not only gave considerable help outside India on a scale that had not been expected of it, but when the war was over, it stood the great test that defenders of India throughout the centuries have so often failed to go through, it repelled a strong army of invasion from the north-western gate. For the purpose of the old type of army its Asiatic section contains a considerable force of mercenaries, who are not Indian subjects, and numerous groups who consider themselves and are considered by the army authorities as aliens to each other. In fact, it may be said that the British on behalf of four helpless provinces recruit mercenaries from the Punjab and elsewhere.

The aim of the future, however, is to create a single India, which shall realize in the end responsible, i.e. democratic, government. For the attainment of this the authors of the Report of 1918 distinctly say that they hope to call forth nationhood instead of caste, and to achieve religious toleration as the result of the use of the ballot box. They look to the day when the talk will be of India and not of the Punjab and Bengal. It might have been expected, considering the history of the past centuries, that the first thought concerning a democratic India would have been that of its self-defence, and that the army would have been organized as quickly as possible on the same lines as the prospective nation. Obviously the right army for a democracy should be one on a territorial basis with quotas from every province proportionate to the population. The men should be taken regardless of caste, or rather under a system that denies caste and thinks of nationhood only. From such an army aliens like Gurkhas should of course disappear, and with them all the Pathans that cannot be counted as domesticated Indians. The difficulty of raising the force required is not to be denied, but this is the stronger argument why those who believe in the policy of the Reforms should tackle the subject as quickly as possible.

It would be a very dangerous thing for the new Indian democracy to raise for itself a mercenary army in the same manner that the British are doing at present. The latter have no difficulty in managing

the various elements of the Indian section because there is force behind their own authority, but the Indian democracy must, if democracy means anything, think of the distant day when it will be able to stand alone without British backing. For India as a whole to rely on non-Indians would be unsafe. For the eastern portion of India to engage troops from the north and west would be to court danger. However close the rapprochement of the religions might become among those who aim at self-government, it would be risky for Hindus to recruit a majority of Muslims for the national troops. A predominating voting power will not be of great value unless the majority has behind it the power to enforce its wishes, as majorities elsewhere could do if it came to a struggle.

It is quite natural that the Army authorities should have taken no steps to change the present system. Alterations of policy must come from the civil power. Meanwhile, finance dominates the situation, and with a small force no risks can be taken, so the old and tried method continues. The army therefore for its own purposes continues to maintain caste, to recruit from a few sections of the population only, and to balance group against group. If there is to be a change, it must be made under the instructions of the British Parliament which is responsible for the policy of the Reforms. It cannot be left to the Indian politicians, not only because the latter are largely made up from the classes that have remained peaceful for countless generations and must find difficulty in visualizing the situation, but also because Parliament is ultimately responsible for arranging for the safety of the peoples for whom it has devised a new method of government.

No doubt, as shown in chapter six of the Montford Report, there was a distinct intention that the British should retain, for a time, the ultimate power. The originators mentioned that it was necessary to provide against religious dissension in case Hindu and Muslim did not achieve unity of purpose and community of interest ; to protect the peasant, the depressed classes, the Anglo-Indian and the British commercial man ; to maintain the British element in the services ; to observe treaty obligations with Indian States, and to be responsible for the defence of India. It may therefore be intended frankly to maintain the Indian element as part of a British army so that to use the words of the Report, " The Government of India must retain both the power and the means of discharging its responsibilities for the defence of the country and of the Empire as a whole."

This policy may hold for a period, but for some one else to reserve

ultimate power is the very negation of responsible government. It is also incongruous to have the dual spectacle of the attempt to demolish caste through the medium of the ballot box, and of the maintenance of caste for army purposes. If it is really possible to create a nation of casteless Hindus uniting with Muslims and people of other races and religions to form a democratic government, such a nation must have its own army and its own power.

The subject is not one to be set aside with ridicule, at any rate, by those committed to the policy of August, 1917. It may be that the Hindus will never consent to consolidate their myriad subdivisions, and to amalgamate Brahman, Khatriya, Vaish, Sudra and Untouchable into a Hindu nation. It may be that Hindu and Muslim will never fuse into an Indian nation. It may be that no Indian national army can ever be created. Those who have studied the Hindus, have studied religions and have studied Indian military problems may have their doubts, but they did not put forward the policy of 1917. It is for the politicians who asseverate time and again that it is the British policy to lead India towards the progressive realization of responsible government, who must study the problem of Indian self-defence. The vision of a democratic Indian nation is theirs. They must provide it with an Indian Army.

“ THE HARDY ANNUAL ”

BY “ CAVERSFIELD ”

PROLOGUE

THE sunshine of a cloudless June afternoon bathed the shadeless cliffs of the small island of Krapinthos. Lieut. Alofi, of the Royal Illatian Army, reclining with his back against a sun-baked rock, was soliloquizing. He was bored to sobs. Would his period in command of the forty men who constituted the garrison of this outpost of his country's empire never end? His thoughts passed from day-dreams of his Illatian home and his Illatian girl to a contemplation of the faint outline of the coast of Anatolia twenty miles away across the sapphire expanse of the Ægean. The vague grey outline of serrated cliffs fascinated him, as might the less picturesque view of the Great Western Railway attract a convict who had managed to look out of the window of his cell in Wormwood Scrubbs. Those cliffs were the mainland; it would be possible to reach Illatia from them overland; a roundabout journey, no doubt, but the fact seemed to bring his home and girl a little closer. Moreover, beyond the line of cliffs the shapes of mountains were vaguely outlined in the heat haze. What was this tantalizingly viewed country like? How exciting to sally forth to explore it! How still more exciting for him and his forty men to be part of an army occupying it instead of merely occupying Krapinthos! Would his time on this cursed island never end?

I

With much rattling, grinding of brakes and the hissing of steam peculiar to Balkan trains, the express from Garapopolis, capital of Rurakia, came to rest on a June evening in the station of Prtljagrad, capital of Neo-Cadonia. Lawrence Carruthers, British Military Attaché, emerged from a first class carriage on his return from serving on the Commission appointed by the League of Nations to

inquire into the violation of Rurakian soil by Neo-Cadonian troops, alleged to have occurred during the previous March. Followed by a porter laden with his two suit-cases, he emerged from the station to find his Russian chauffeur, Boris, waiting with his Chrysler car. Five minutes' bumping over the Alpine topography of the Prtljagrad streets brought him to within fifty yards of the entrance to his flat, when the full power of four-wheel brakes alone prevented the car from plunging into a chasm across the road.

“ What's this, Boris ? ” he asked.

“ The Town Council, Colonel, have decided that the telephone wires shall be laid underground instead of overhead. They have heard that Prtljagrad and Garapopolis are the only two capitals in Europe where this is not already the case, except, of course, for Buzzara, and they say they must be better than Buzzara at any rate.”

“ God, what a country ! ” exclaimed Carruthers. “ To my certain knowledge, not a penny has been spent on repairing the streets for the last three years, and Heaven knows how long before that ; and they fuss about the altitude of the telephone wires ! It simply means, of course, that there will be one extra chance of breaking the springs of one's car in each street.”

The last fifty yards of the journey having been passed on foot with Boris carrying the baggage, the Carruthers family became reunited in their flat, which consisted of sitting-room, dining-room, two bedrooms and bathroom.

“ You must hurry up and dress, Lawrence,” remarked Mrs. Carruthers, after greeting her husband ; “ I've promised that we will dine with the Mildmays to meet a Mr. Venables. He is a prominent member of the League of Nations Union and has come out here to get first-hand information of the Balkans. He wants, first of all, to have a talk to the Englishmen on the spot, so the Mildmays implored me to bring you ; they have got Miss Hudson to complete the party.”

“ Oh, then thank God there won't be any need for ‘ *parlezvousing*. ’ Do you realize, old girl, that I have not spoken the King's English for five solid weeks ? Mr. Venables sounds sensible, too ; so many people of that sort come out here and ignore us altogether, with the result that they get stuffed up with very remarkable ideas and sometimes never get unstuffed again. Well, you might go and turn on the bath for me, as there's a hurry.”

“ I'm so sorry, darling ; but the geyser went wrong three days ago. I've been every day since to tell them to come and put it right, and every day they say they will come to-morrow ; but, as

I seem to have heard you say not infrequently, in the Balkans to-morrow means next week and next week means next month. There goes the electric light ! That's the third time it's failed since you went away."

In due course the Carruthers arrived at the quite superior house occupied by the First Secretary to the British Legation. The ground floor consisted chiefly of an outer and inner hall, both of fair size, and pleasantly furnished with Serbian and Albanian rugs on the floor and covering two or three large divans. The oriental atmosphere was complete, except for one huge English armchair and a great many very English photographs dotted about on tables. A small dining-room opened out of the inner hall and such space as remained was occupied by a kitchen as far from the dining-room as the size of the house rendered possible. A flight of stairs led from the outer hall to the upper regions.

The Carruthers were the first to arrive. "Well, Lawrence," said Basil Mildmay, "so you could not decide whether Neo-Cadonia invaded Rurakia or not. How did the famous piece of evidence on Rurakian soil come to fail to solve the riddle ?"

"Well," answered Carruthers, "there was certainly a Neo-Cadonian soldier's cap lying on what was indubitably Rurakian soil. Moreover, its owner's name had once almost certainly been inscribed in it ; but unfortunately it had been written in indelible pencil, and, as the cap had lain there for nearly three months, while they wrangled over the appointment of the Commission, the inscription had become nothing but a purple blob. It was merely an insult to our intelligence to expect us to accept the perfectly clean bit of paper with a name on it, which had been pasted over the purple blob, as having been there for three months. However, the Rurakians had the cheek to ask us to believe that it had. So we returned a verdict of non-proven, and they are quite happy now propaganding to get their loan for extra armaments to prevent such a thing happening again."

"In fact, everything has gone off strictly according to the recognized rules of Balkan crises," observed Mrs. Mildmay. "Oh, here comes Miss Hudson."

Most people who have visited the Balkans will agree that, in spite of all the discomfort, all the squalor, and all the political intrigue, the peninsula and its inhabitants have a curious fascination of their own. To some this fascination appears irresistible, and such had been the fate of Miss Hudson. Fond of travelling, she originally came as a tourist. The Balkans cast their spell over her, and for

some fifteen years she had laboured ceaselessly and whole-heartedly to bring a little brightness into the lives of as many peasants as she could help. But she had also been infected with another Balkan microbe—she had become a violent and bigoted partisan. In her eyes no Neo-Cadonian could do wrong, no one of the other races could do right. After greetings she turned on Carruthers, “Well, I hear you only allowed those beastly Rurakians partially to bamboozle you this time,” she remarked. “Of course, you ought to have found them guilty of lying and deception; but at all events you did not allow them to talk you into convicting the innocent party, as they so often have before.”

Carruthers bowed low before her. “Dear lady, I am indeed proud to have succeeded for once in at all events partially avoiding the full vials of your wrath. But, lo, if I mistake not, here is the guest of the evening.”

Mr. Venables entered, extolling with breezy cheerfulness the kindness of those who thus provided him with the opportunity of getting a few first-hand facts from experts before he began his main task of endeavouring to absorb as much Balkan atmosphere as possible.

“Well, Mr. Venables,” remarked Basil Mildmay, “as a first step towards acquiring Balkan atmosphere I prescribe this glass of vodka before we sit down to dinner; there is nothing like vodka for enabling one to look at Slav problems through Slav spectacles. The metaphor, I fear, is somewhat mixed, but the vodka, I assure you, is neat.”

Mr. Venables having been thus prepared for the consideration of Balkan problems, the party adjourned to the dining-room.

“Are you comfortable at the Hotel Bristol, Mr. Venables?” asked Mrs. Mildmay, when they were seated.

“I am indeed; I even have a room with a private bathroom with glorious hot water.”

“Yes,” said Carruthers, “things have improved in that way lately. A few years ago I stayed ten days in an hotel in a Balkan capital—not this one, let me say. I was as pleased as a dog with two tails when I found I had a room with a private bath; but it was never any use to me. Hot water was rationed, each bathroom had it for one hour a week. I’ve never been able to understand how it was hydraulically possible to shoot hot water to different parts of the building on a time programme, but they certainly did it. My bathroom had hot water from seven to eight p.m. on Thursdays, and the only Thursday I was there I had an official appointment at that exact hour which I could not miss, even for a hot bath.”

"Why is there always an Hotel Bristol in every Balkan town?" remarked Mrs. Carruthers. "What has Bristol done to earn such fame?"

Mrs. Mildmay laughed. "From what I know of the Manager of the one here, I should think he would tell you that the town must have been named after his hotel. He thinks there is no other like it in the world."

"Well, I will not go so far as to agree with him there," observed Mr. Venables; "but now let me start to pick all your brains. First, I've a conundrum for the military expert. One would think that the Balkan States ought to be even more sick of war than the rest of Europe after all this generation of their peoples has been through. Moreover, their countries are in the most pressing need of economic development, for which all available labour is needed. Yet, in spite of these two apparently obvious facts, the war spirit seems to be more alive here than anywhere else in Europe, and it never seems to occur to them to try to improve themselves economically by abandoning conscription and concentrating all available labour on developing their countries. It seems to me that such a policy would help them enormously towards attracting the foreign capital which they must have if they are to improve their standard of living."

"You have said a bellyfull, as my American colleague would say," answered Carruthers. "I'll try and put their point of view as shortly as I can. Mildmay and I have often discussed much the same point, and I know he agrees with what I'm going to say. Miss Hudson will dot the 'i's' and cross the 't's' for me. First, as to the horror of war. Western Europe really only acquired it as a result of the performances of the industrial and scientific world in producing frightfulness between 1914 and 1918. Now that side of war hardly touched the Balkans and has hardly touched them yet. If war broke out here to-morrow it would practically be fought with the weapons of 1914. They all went through awful privations during the war here; but that means nothing to these people, they have never known anything but privations all their lives."

"Hear, hear," murmured Miss Hudson; "besides, you must remember that all these races have only escaped from Turkish rule within the memory of the oldest inhabitants. They have been nurtured for hundreds of years on blood and thunder. I know of at least one case of an old man who was found in 1922 or 1923 quietly cultivating his plot of ground in a remote Balkan valley without ever having heard of the Great War. Yet armies had

marched and counter-marched over his land several times in the course of it, but he took no notice of them, as he had seen the same thing so often before. He regarded it as a normal periodical phenomenon."

"Now let me take up the story with regard to conscription," said Mildmay. "Popular education is still very much in its infancy in this part of the world. All Balkan countries contain a *mélange* of people. The majority of the inhabitants of each country may be theoretically of the same race, but each race has many different branches, which the pre-war frontiers kept apart from one another, and who now, when politically joined, find they have very different outlooks. In each country there is also a foreign element, produced either by the impossibility of drawing an exact ethnographical frontier, or as the result of migrations in past ages. Then again, very often though the race is the same the religion is different, which is apt to come to much the same thing in these parts. The governments are therefore faced with the problem of trying to fuse discordant elements into a homogeneous whole. No doubt there are more scientific methods of doing it than compulsory training in the army, but on their upbringing it's the one which occurs to them as most ready to hand. From bitter experience they fear war as a constant possibility, and, by bringing the youth of the country together to train for war in the army, they can bring the various elements of the population into contact with one another, which is exactly what is most wanted."

"Exactly," remarked Carruthers; "and accordingly they do not recruit their units territorially, but mix all sorts up in the same regiment."

"Most interesting," observed Mr. Venables; "I see your point. Now we know, of course, that in France conscription is regarded as essential to democracy in order to guard against the danger of a military caste capable of engineering a military *coup d'état*. Does the same idea prevail here?"

"No, because they don't really understand democracy in the Balkans. Such an idea would be too subtle for them. Incidentally, they do not fear military dictatorships; they are well accustomed to them."

"You mentioned the question of attracting foreign capital," remarked Mildmay. "The real trouble over that is pride. They like to dream of the Balkans for the Balkan peoples, and they cannot see that the attraction of the foreign investor does not really interfere with that idea. They are hopelessly suspicious of any sort of outside interference."

"Can you blame them," interposed Miss Hudson, "after their experience with great Powers? No sooner were they free of the Turks than Austria and Russia started bullying them, and now it's Illatia's turn. I often wish I could have ten minutes alone with the man who invented the idea of the '*Drang nach Osten*.' I should have plenty to say to him."

"What do you think is the real truth of Illatian penetration into the Balkans?" asked Mr. Venables.

"Well, it is their largest bogey here, most certainly. They are desperately afraid of it," observed Mildmay; "I think with some reason, too. They rather fail to see what is, to my mind, the rosy side of it from their point of view, namely, that the one certain result of it would be very badly burned fingers for Illatia. She will never really go ahead if she gets involved in the Balkans. Just as we never began to progress as a nation so long as we clung to the idea of conquering France and indulged in the Hundred Years' War. The moment we realized, in Elizabethan times, that our destiny was not on the Continent, we began to rise, and I believe Illatia has got to learn the same lesson."

"You are perfectly right," remarked Carruthers, "and they will be lucky if the lesson does not prove to be a painful and costly one. My friends on the General Staff here are always telling me that, unless something is done about it, within five years Nabolia will be an Illatian colony with an Illatian governor-general living in the President's palace at Buzzara. I never can make out how far they really believe it; anyway, they certainly find it the best lever for keeping up the army estimates. But enough of the Balkans; remember I've just returned from five weeks of complete lack of contact with civilization. Tell me the news of the great world. As an example of the depth of my state of darkness I may mention that I do not even know what happened in the Test Match at Lord's last week."

II

The day's work was over in the sleepy little port of Vari on the south-east coast of Illatia. The cafés on the water front were filling with weary toilers in search of refreshment. The Neo-Cadonian Consul, accompanied by his wife and daughter, strolled along the front on his daily constitutional. Passing one of the quays, their attention was drawn to a most unusual proceeding. The normal hour for work in the port to cease was some time past, yet here was

a ship being busily loaded. Derricks swung to and fro transferring heavy bales from shore to ship. What could be the meaning of such a remarkable state of affairs ? With much rattling of chains a heavy load was lifted into the air. What could that object be, rotating rapidly as it rose at the end of the chain ? Trembling with excitement they gazed. Is it—can it be ? Yes, it is—a field-gun ! The Consul’s mind went back to the days of his service in the army. What sort of a field-gun ? A mountain gun, surely. But mountain guns would only be placed on a ship to be taken to a mountainous country, and were not the mountains of the Balkan Peninsula only one hundred miles away to the eastward ?

“ Sasha,” he exclaimed to his wife, “ we must see more of this ! Can it be that to me is to be vouchsafed the honour of being the first to announce to our Government that the long-feared occupation of Nabolia has begun ? Let us take a table at this little café, where we can watch the loading of the ship, and perhaps overhear some of the talk of all those Illatian officers sitting there. They are drinking wine, and wine not only gladdens the heart of man but also loosens his tongue. Much may often be learned in cafès and places where men drink.”

As they took their seats at a marble-topped table in the shade the Consul duly observed that the officers around them did not belong to the regiment quartered in the town. Clearly they were part of this mysterious expeditionary force. Moreover, it was not difficult to overhear snatches of their conversation, and with ears straining to catch every syllable our three Neo-Cadonian friends gleaned the following disjointed remarks : “ All very mountainous—what language do the people talk—the first step to greater things—we should have a good voyage.” Suddenly the daughter leaned across and seized her father’s arm.

“ Father, did you hear what that tall officer at the next table but one just said ? I heard it quite distinctly. He said, ‘ Austria was quite right to annex Bosnia and Herzegovina in 1908, we shall . . . ’ I could not hear the rest.”

The Consul came to a decision : the time for action had come. Followed by his women-folk he rushed from the café, hotly pursued by the waiter brandishing his bill. Ten minutes later he was in his office, his cypher-book open before him, concocting a telegram to Prtljagrad and to the Neo-Cadonian Legations in Illatia and Nabolia. It was a long telegram, and took some time to encypher, especially as it was many months since the Consul had had occasion to do such a thing, and he was rusty. At last, however, it was finished,

and he hastened with it to the telegraph office. He almost expected to find it closed or to have his telegram refused, but, to his surprise, none of the postal officials seemed to be aware of any unusual events, and his telegram was accepted for transmission without a murmur.

III

Mr. John Mannering, British Vice-Consul at Quarento, the port of Buzzara, capital of Nabolia, paced the quay waiting for the arrival of the bi-weekly boat from Vari, which was bringing his brother to pay him a visit. As usual, the boat was late, but Mannering, being new to the Balkans, had not yet judged the local time scale and had been foolish enough to arrive on the quay ten minutes before the advertised time of arrival. He had been waiting a good half-hour before a puff of smoke on the horizon indicated that his vigil would probably only last about an hour more.

In due course the boat arrived, and a round dozen of passengers, all obviously in a state of suppressed excitement, stepped ashore. The newly arrived Mannering hastened to impart the great news to his brother. He had himself seen military stores being loaded on to two ships in Vari harbour, and also seen troops apparently making ready to embark. From the other passengers he had gleaned that there were strong rumours that similar, if not greater, activities were taking place in adjacent ports along the Illatian coast. One of the passengers had overheard an Illatian officer say that they would sail on the following day. The captain of the boat had expressed his conviction that an invasion of Nabolia was impending. Fully expecting to be stopped by Illatian destroyers, or even torpedoed by an Illatian submarine, he had, accordingly, steered a devious and erratic course, and hence the tardy arrival of the boat.

On arrival at the Vice-Consulate, John Mannering was informed that the *Charge d'Affaires* in Buzzara wished to speak to him urgently on the telephone.

A faint voice came over the line. "Is that you, Mannering? Look here, the wildest rumours are flying about here. They say an army of 50,000 men has embarked at Illatian ports and is on its way here. I've just seen the Neo-Cadonian Minister; he was in such a state that I feared for his sanity. As far as I could follow the torrent of words which he poured forth, he seems to have had some sort of official telegram confirming the rumour. It all sounds too fantastic for words—but what isn't fantastic in these parts! Have you heard anything about it?"

"Yes," replied John Mannering; "I have just seen my brother, who came by to-day's boat from Vari. He says troops were certainly embarking there, though of course he cannot say where they were going. But it was noised abroad among the passengers on the boat that the long-rumoured occupation of this country was about to take place. Old Klakamos, the captain of the Vari boat, whom I think you know, was in a proper breeze about it all."

"Well, I would not give much for Klakamos' opinion; but if your brother actually saw troops embarking, the rumour certainly is not entirely without foundation; but it seems inconceivable that the Illatians should try such a wild gamble."

"Have you seen any members of the Government to-day? What do they say?"

"No, they are none of them here. The President, as you know, has retired to his country seat and a Cabinet meeting is being held there to-day, so they all went off this morning early. It is never any use asking the Ministry of Foreign Affairs about anything during the Minister's absence; all one ever gets is a polite request to await His Excellency's return."

"Why not ask the oil people if they have heard anything? It would affect their concessions pretty considerably if it happened, so perhaps they might get advance news."

"Oh, they are no use. They are so busy burrowing for oil that is not there, that they will be lucky if they hear the last trumpet. Well, let me know if you get any further news, or if a fleet of transports heaves in sight. So long."

IV

Lawrence Carruthers was seated in his office in the Chancery of the British Legation, when Mr. James Meredith, Balkan correspondent of the *Daily Post*, entered.

"Have you heard these extraordinary rumours about an Illatian occupation of Nabolia?" asked the new arrival.

"No, but no doubt I soon shall. I have an appointment with the Chief of the General Staff in half an hour's time, and I have no doubt he will have a lot to say on the subject. Of course, it's sure to be the usual Balkan mare's nest. Where did you get it from?"

"The local correspondent of my paper came to see me while I was having breakfast this morning. It is his habit to wait upon

my august presence while I break my fast each morning of my periodical visits to Prtljagrad. As a rule, I find the discussion of Balkan political intrigues rather trying at that hour of the morning, but at all events to-day he did produce this story, which seems outside our usual daily round."

"Where did he get it from?"

"He has a friend in the telegraph office who claims to have been the actual operator to take off a telegram that came in about it during the night. It's all over the town now."

"It must be a great help to you in your profession," observed Carruthers "to be functioning in a part of the world where the professional etiquette of postal officials does not impose secrecy upon them."

"Yes, it has its uses," laughed Meredith. "But the point is, will it be the greatest scoop for my paper to be the first to publish the news, or to be able proudly to say in two days' time that so foolish a rumour had not appeared in its columns?"

"I would gamble on the high horse in two days' time, if I were you. Well, I must be off for my interview with old Pruzhski. Look in here in an hour's time and I will tell you what he says. You might tell Mildmay about it on your way out."

A quarter of an hour later Carruthers mounted the stairs of the General Staff building, and entered the room occupied by Colonel Stanislav, general factotum to the Chief of the General Staff of the Neo-Cadonian Army.

"Good morning, Colonel," said Stanislav. "I fear His Excellency cannot see you after all. He has just been summoned to the Palace; the King wishes to see him, the Prime Minister and the Minister of War at once. You have perhaps heard that an Illatian force is stated to be in process of occupying Nabolia."

As he finished speaking, General Pruzhski entered. "Ah, Colonel Carruthers!" he exclaimed, "I greatly regret being forced to forego the pleasure of a chat with you this morning, but Stanislav has no doubt told you of the bad news we have had. But let us anyhow walk as far as my car together."

"Yes, General, I have heard the rumour," replied Carruthers. "I sincerely hope it may prove unfounded."

"Our Consul at Vari wired last night that he had seen troops embarking, and this morning he wired again to say they had sailed. You know we have always feared they would occupy Nabolia," observed the General. "I think now the Government will have to agree to the formation of the four new regiments which I have

been advocating for the last year. Can I give you a lift in my car, Colonel? I pass your Legation on my way to the Palace."

" Thank you, General, but I am not going back to the Legation yet. I have another appointment first."

The General entered his car; while Carruthers, to keep up the illusion that he was not returning to the Legation, turned down a side street. A short detour brought him back to the Chancery, where he found the Minister, Sir Matthew Constable, talking to Mildmay. Sir Matthew waved a greeting.

" I hear you have just been interviewing Pruzhski, Carruthers," he said. " What does he think about this rumoured crisis? "

" I only had a moment with him, Sir Matthew," replied Carruthers. " He was just off to a conference at the Palace about it. His chief preoccupation seemed to be that now the Government would have to give way over the formation of the four new regiments he wants; though where the officers for them are to come from I do not know. The army is at present 600 officers short of establishment, and they are very short of candidates for the Cadet School, so it seems foolish to talk about adding an extra 200 to the numbers wanted on paper. He offered me a lift here in his car, but I thought it best to refuse it. If I were to be seen to-day, in my best uniform, sitting alongside him in a car, the next rumour would be that we had declared war on Illatia in alliance with Neo-Cadonia."

Sir Matthew chuckled. " My dear Carruthers, in your case the British Army's gain has been diplomacy's loss. You think of everything. Machiavelli himself would intrigue against you in vain."

" Well, Sir Matthew, I've had some experience of Balkan rumours. I sometimes think that when the bowler hat is placed upon my head I shall devote the rest of my life to writing a treatise on the crowd psychology of the Balkan peoples."

" You could not more usefully employ your declining years. You are certainly well fitted to add to our knowledge of a branch of science which has received far too little attention hitherto. But I must tell you my news. My new Saxanglian colleague has just been to see me on his way back from presenting his credentials at the Palace. He found the King in a very disturbed condition. His Majesty apparently said that he was now reconciled to the fact that war with Illatia was inevitable, and that when it came he felt sure Rurakia would stab Neo-Cadonia in the back. As you may imagine, this came as a shock to the representative of Saxanglia, who has hitherto led a sheltered life, far removed from the turmoil of Balkan

diplomacy. However, I think I succeeded in persuading him not to send alarmist telegrams to his government at this stage at all events. Well, no one can say that life in the Balkans is dull, anyhow."

EPILOGUE

The G.S.O.3 of the Balkan Sub-Section of the Directorate of Military Intelligence rushed down the passage in the War Office and burst into the Sub-Section's room waving the morning's crop of Foreign Office telegrams in his hand.

"Now," he exclaimed to the G.S.O.2, "you are always so beastly *blasé* about the Balkans, but I've got a shock for you this time! Here's a telegram from Buzzara saying that it is reported on reliable authority that an expeditionary force has sailed from Illatia to occupy Nabolia."

The G.S.O.2 regarded his subordinate with a languid and uninterested eye. "Oh," he remarked, "so that dear old hardy annual has come back again, has it? I thought it was about due. This time last year, if I remember right, they were going to invade Anatolia. The year before, I rather think they were by way of seizing Tunis by a *coup de main*. Actually, of course, they are merely relieving the garrisons of all those Ægean islands of theirs, Krapinthos and so forth."

REGIMENTAL LECTURE HINTS

BY COLONEL H. W. B. THORP, D.S.O., *p.s.c.*

THESE hints for regimental lecturers are not intended for officers who are accomplished lecturers ; they know more about the subject than does the compiler of these notes, which are designed for use by regimental officers and non-commissioned officers, and are couched in homely language.

Only recently has a serious attempt been made to teach officers how to teach, and many officers have never been taught how to lecture. This omission in early training can be repaired to a certain extent by careful preparation and organization of the lecture.

Four types of instructional lecture are contemplated in these notes, viz. :—

(A) An officer or non-commissioned officer instructing a small squad or a section of about seven students in, say, the details of map reading, or the construction of cover, or the mechanism of the rifle or Lewis gun or magneto, etc.

(B) An officer or non-commissioned officer lecturing to his platoon on some military subject, e.g. regimental history, topographical terms and the use of maps, use of ground cover and formation.

(C) An officer lecturing to his company ; or officer recently returned from Hythe, Netheravon or Sheerness lecturing to the officers and senior non-commissioned officers of the regiment on the lessons learnt at the school.

(D) A regimental officer delivering a rather more advanced lecture on some special subject, e.g. lecturing to the officers of the brigade. The audience may be any number from thirty to one hundred.

All the following “Hints for regimental lectures” are not equally applicable to the four types of lecture, but the reader will pick out readily those which apply to each particular type. The intimate instruction of a small squad (see type A above) differs in some respects from types (B), (C) and (D).

In type (A), the squad should not exceed ten in number ; six is

the ideal number. The squad receives intimate instruction from one instructor who teaches by word of mouth and by actual demonstration. The mechanism is manipulated by the instructor and by the students. The "Question and Answer" method is employed. Notes are taken when necessary. Students are led on to supply the answers to their own questions by the heuristic method. The squad is kept alert; this is aided by frequent change of seats as they rise to examine parts of mechanism or models. The instruction does not take the shape of a formal lecture and the squad is grouped round the instructor and his apparatus.

In a more formal lecture of type (C) or type (D) the lecturer expounds his doctrine to the audience and does not question them, although he may invite questions at the end. His main problem is to hold their interest and to plant his lesson in the minds of the listeners. It will usually be best to issue afterwards a précis of the lecture, but not to require the audience to take notes during the lecture.

Type (B) is rather the half-way house between the instruction of a small squad and the delivery of a more formal lecture. In type (B) the students will often be called upon to take notes. The lecturer asks questions from time to time to ensure that the audience is alert and understands his teaching. Diagrams, maps and models should be exhibited when applicable, and in some cases the lecturer will demonstrate freely to illustrate his meaning.

In type (A) and type (B) questions should be addressed especially to those prone to sleep. The idlers will then try to keep awake so as to be ready for the next question. Note taking by the students during type (A) and type (B) is to be encouraged. The fair copy notes should be inspected on a subsequent occasion. Note taking ensures mind concentration of the students, but pauses break the flow of the lecturer's discourse. In type (C) notes may sometimes be taken at the discretion of the lecturer; the decision depends on the nature of the subject and the composition of the audience.

To deliver a useful lecture the first requisite is that the lecturer shall know his subject thoroughly in all its aspects. Preparation is important. "Let your speech be always with grace, seasoned with salt." The lecturer must think out and decide exactly what lessons he wishes to elucidate and instil in the minds of his audience. "For if the trumpet give an uncertain sound, who shall prepare himself to the battle?" He should arrange the headings of his lecture in logical sequence so that one point leads on to the next. This helps the student, because if he remembers the first heading

the others should follow semi-automatically. It is a mistake to obscure important facts in a mass of unnecessary detail ; the aim is to establish a broad strong frame before attempting to fill in the detail and to avoid quoting too many figures ; these can be put in the printed précis for issue afterwards.

It does not pay to rub in too many lessons in one lecture, it is preferable to plump for about five important points and ram them home clearly and concisely. A long lecture bores the man of action. The lecturer should remember that his audience are " pressed men." Attendance at the lecture is not voluntary, as a rule, whether it be of type (A), (B), (C) or (D). A human and interesting lecture, properly delivered, will always command attention.

Sirach (B.C. 350) gives us wise and helpful advice in Ecclesiasticus :

" Sum up thy speech many things in few words,
Seek not things that are too hard for thee,
And search not out things that are above thy strength.
The things that have been commanded thee, think thereupon,
For thou hast no need for the things that are secret.
Be not overbusy in thy superfluous words,
For more things are shewed unto thee than men can understand."

A sense of humour is necessary ; the lecturer should strive to combine the wisdom of Sirach with the guile of the serpent. If he can make the soldier laugh during the first five minutes of the lecture he will probably hold the attention of the audience for half an hour, as all will listen intently during the following twenty-five minutes to detect the next joke ; the humour need not be very subtle. This applies particularly to the first two types of lecture.

Few military audiences will pay much attention to a man who simply reads a paper ; it is preferable to speak from a number of " subject headings " previously jotted down, and Milton has written of the ideal lecturer : " His words like so many nimble and airy servitors trip about him at command." A good lecturer holds his audience by convincing them that he is imparting to them certain useful knowledge which they do not possess, and further, that his subject is of interest or practical value to them. He appeals, in part, to their selfish instincts or self-interest. It is important to finish up well, but not to deliver a parliamentary peroration.

When speaking out of doors, e.g. a brief *pow-wow* at the end of a company or regimental tactical exercise on the ground, attention should be paid to the direction of the wind ; the listeners should

be down wind of the speaker and collected in a sheltered spot if possible. Wet, cold, hungry or tired men will not pay attention to a long oration.

The printed *précis* of the lecture should be comprehensive. It consists of the lecture headings, expanded as necessary, and includes figures, tables, statistics and other dry but necessary facts which were not given verbally by the lecturer. References to appropriate sections of official training manuals can often be included with advantage. For lectures of the type contemplated in these hints it is usually a mistake to issue the *précis* before the conclusion of the lecture. Some of the students will probably read the *précis* when they ought to be listening to the lecture, and, moreover, the cumulative sound produced by the rustling of papers in the hands of every person seated in the room distracts attention from the words of the speaker.

It goes without saying that the lecture should begin punctually at the advertised time; it is equally important to finish at the appointed hour. Any delay in the dispersal of the audience detracts from the popularity of the lecturer.

The actual drill and organization of lecturing may conveniently be considered as points to be observed before, during and after the lecture.

A. Points before the lecture.

(a) Learn the subject thoroughly in all its aspects and prepare the lecture carefully as already indicated.

(b) Provide suitable maps, diagrams and models and arrange for their display in proper positions in the lecture room. A pointer stick is required, also a good blackboard with chalk and duster. Yellow chalk often shows up better than white. Decide whether artificial light is necessary.

(c) A table or lecturer's desk is essential on which to place watch, note of lecture headings, and possibly models. A lecturer's platform slightly raised above the floor level of the audience has advantages.

(d) Ensure that all the windows and doors of the lecture room will open and shut properly and without noise, also that they can be fastened and do not rattle in the wind.

(e) Place a janitor at the door to prevent entry of intruders during the lecture, but be sure that Cerberus does not bark.

(f) Make arrangements (e.g. a regimental policeman) to prevent "Noises without" which distract the attention of the audience.

A motor-cycle, a mouth organ, a barking dog, a baby's trumpet, or a bad bugler may have a most disturbing effect.

(g) Arrange proper ventilation of the lecture room and avoid draughts; but be sure it is not too cold. Do not simultaneously roast some and freeze others.

(h) Place the audience so that the sun or other strong light does not shine into their eyes.

(k) Seat the audience comfortably and test the angles of vision to ascertain that all can see the blackboard and other exhibits. Give clear orders how many seats are required.

(l) If students are required to write or take notes, tables or desks should be provided for all and preliminary orders issued to them to bring note books and pencils.

(m) Test whether those sitting at the back of the room can hear.

(n) Place the most backward and slowest students in front. Any known idlers or mischief makers should be seated specially so as to be under close observation.

(o) Decide whether smoking is allowed and let all know beforehand. The striking of matches and knocking out of pipes disturb a lecture.

B. Points during the lecture.

(a) At the outset state briefly the subject of the lecture. Announce whether a précis will be issued afterwards and say whether notes are to be taken by the students during the lecture. Tell the audience whether questions will be invited at the end. It is sometimes desirable to announce the probable duration of the lecture.

(b) Do not write small on the blackboard, clear bold capitals are best. Be careful not to stand between the audience and the blackboard or other exhibits.

(c) Do not read the lecture verbatim. Speak from a brief note of lecture-headings in proper sequence.

(d) Address the audience and not the window or blackboard or diagrams. Keep an eye on the class.

(e) In the small squad especially the instructor must be careful to hold the attention of all his flock, and must not address his remarks to one person only.

(f) The lecturer in a room of any size should usually direct his voice to a point rather above the heads of the back row of the audience, as the sound waves tend to fall as they travel. A common fault is to let the voice drop at the end of a sentence. Avoid

repetition except purposely for the sake of emphasis. To grip the audience it pays to vary the speed of speech occasionally, especially if the audience is drowsy ; say important things slowly and impressively and put on speed a bit over some less essential details, but do not hurry.

(g) While lecturing, any difficult or unusual names should be written up on the blackboard.

(h) In cold wintry weather, or during an epidemic of colds, it is sometimes desirable to pause occasionally and allow any one who wishes to cough or blow his nose to do so without interrupting the lecture.

(k) The stupidity of one or two members of the class must not cause the lecturer to show annoyance. " For ye suffer fools gladly, seeing that ye yourselves are wise."

(l) Questions or discussions should not be permitted to stray from the subject matter of the lecture. Do not allow one or two persons to monopolize attention.

(m) Be stern with late arrivals. Do not allow any one to come in while the lecture is in progress.

C. Points after the lecture.

(a) Arrange for the return to their proper places of maps, diagrams, etc., used at the lecture ; also for the safe custody of the lecture room and its contents.

(b) Arrangements must be made for the inspection of fair-copy note books if notes were taken during the lecture.

(c) If notes were not taken during the lecture, a précis (printed or typed) should be issued after the lecture but before the audience disperses ; one copy is required for each person who attended the lecture. Arrangements for rapid and accurate distribution should be made beforehand.

NOTES ON FOREIGN WAR BOOKS

THE fifth volume of the German official history of the war, taking the account in both theatres up to the 3rd of September, 1914, and the fourth of the official monographs on the battle of the Marne, 1914, are reviewed at length in special articles.

The most important publications of the quarter included here are the fifth volume of M. Poincaré's reminiscences, covering "the invasion of 1914," the German official monographs on Verdun and "Flanders, 1917," a Serbian account of the operations against Austria in 1914, and the accounts of Marshals Joffre and Foch by Colonel Mayer, who was at a Lycée with the one and at the École Polytechnique with the other.

WESTERN FRONT

The fifth volume of M. Raymond Poincaré's reminiscences "*Au service de la France. Neuf Années de Souvenirs. V. L'Invasion 1914*" (Paris, Plon, 25 francs), is a diary, apparently written up day by day, but certainly augmented at later dates, of personal and public events, rumours and opinions. It contains much of internal political interest, but from the military point of view only indicates how little French Headquarters told the President of the military operations. An entry on Monday, the 31st of August, clears up one matter as regards the panic intention of Sir John French, under the prompting of Sir Henry Wilson, to withdraw the British troops from the front. It is :

"Since Joffre has now informed me that if the British would consent to slacken their retreat and contain the Germans, the chances of success would be greater than the chances of defeat, I begged Sir Francis Bertie [the British Ambassador] to come and see me, and he promised to telephone to French. About 10 p.m. he brought to me a British officer, who carried the reply of the Field-Marshal :

" 'Given,' wrote French, 'the heavy losses in men and material which the British army has suffered in its retreat since Mons ; given also the fact that until yesterday it has been continuously engaged with the enemy, it has need of a week's rest (*huitaine de jours*) at least

to reorganize, refit and again become an efficient fighting unit. The most I can say is that I do not wish to retire further than a line drawn east and west through Nanteuil, as long as the French army is not south of its present position. After this respite I shall be ready to hold the British forces at the disposal of the French Commander-in-Chief under the conditions which he judges best, provided always that my independence of action is preserved and my lines of communications assured.' "

"Eight days," comments M. Poincaré, "Eight days; the Germans will probably be in Paris before eight days."

The next entry on the subject is on the 1st of September :

"Millerand [Minister of War] met, at the British Embassy, Lord Kitchener and Field-Marshal French, who both had come to see him. I had proposed that an attempt should be made to arrange a meeting with General Joffre. It was also the wish of the British Minister of War. But French, who suffers the authority of Kitchener impatiently, and on the other side is very jealous of maintaining complete independence in his relations with Joffre, thought a *rendez-vous* which Millerand had conceived would be useless and besides difficult to organize without giving our General-in-Chief the trouble of leaving his headquarters. The Field-Marshal now proposed that the British and French should not at first retire further than the Marne. He would consent to entrench the British army in the region of Meaux. [He gave orders to that effect.] But in return he demands that General Joffre shall send troops to defend the Seine below Paris, and shall besides increase the forces of our left wing. French preserves, as is natural, the dominant pre-occupation of not being cut off from the sea."

There being no direct telephone communication with Joffre, whose headquarters were at Bar sur Aube, an officer was sent to him with French's demands.

The next entry is :

"The Commander-in-Chief does not believe it possible to accept the programme of Field-Marshal French : the British army to halt on the Marne, provided that the lower Seine is defended by the left wing of our troops. He prefers to withdraw all the French Armies, except that of the entrenched camp of Paris, and take them back if necessary to the upper Seine, pivoting on their right."

There is an interesting entry on the 2nd of September :

"Joffre is not definitely assured of the change of direction of Kluck, but it becomes more and more marked, and this morning again a scout found on the body of a German officer a note which orders the change of direction." Next day, of course, aviators

noticed the movement. On the evening of the 2nd, the Government left Paris for Bordeaux.

The sending of General Foch to Flanders in October, 1914, as deputy of the General-in-Chief, to coordinate the action of the British, Belgian and French, was "the first attempt, still very timid and incomplete, at unity of command."

One's faith in the value of the diary is shaken by the following entry under 1st of November, 1914:

"Foch gives me all the details with simplicity and modesty. He reports an incident which happened the day before yesterday. During the evening of the 30th of October he suddenly learnt that the Germans with a single blow had torn the British cavalry screen and captured Ramscapelle [in the Belgian area] and Hollebeke [lost on the 30th]. He hurried at midnight to Field-Marshal French's and had him awakened. 'Have you any reserves?' he asked. 'Unfortunately not,' replied the Field-Marshal. 'I will send you some. Hold on until they arrive.' [There was no thought of retiring on the 30th of October, the 31st was the critical day.] Foch returned to Cassel at 2 a.m. and gave orders for reinforcements to be directed towards the British army.*

"But the British I Corps was nearly annihilated. Field-Marshal French thought of withdrawing his heavy artillery and even retreating. Foch rushed to Vlamertinghe, summoned French to him and said: 'Believe me, if we show our weakness, we shall be carried off like straw dummies. Keep your I Corps *coûte que coûte* where it is. I will attack myself right and left of you with French troops.' Whilst speaking, he took a sheet of paper on a desk. He hastily scribbled four lines on it, in which he put his ideas into definite form. French read it, reflected an instant, called an orderly officer, and said, 'Carry this order.' The disaster was conjured."

This is a very inexact record. See the Official History, Vol. II, pp. 342-343. After Sir J. French had left Sir D. Haig's headquarters on the 31st, and heard that Gheluvelt was retaken and all was well, he proceeded via Ypres through Poperinghe where he was recognized by a French Staff officer, who told him that General Foch was at General d'Urbal's battle headquarters there, and a meeting at once took place. Sir J. French sent Sir D. Haig the information that small counter-attacks right and left of him would be made by six battalions of the 32nd Division and part of the IX Corps (Haig already had the five battalions which Dubois could

* He may have done so, but none came. The Official History states that at 11 a.m. on the 31st Sir D. Haig warned General Dubois (commanding the IX Corps alongside him) that he might require assistance, and the latter immediately placed a cuirassier brigade at his disposal, and sent it towards Hooge, and later sent his corps reserve, three battalions. At 10.30 p.m., on hearing more fully the results of the day's fighting, General Dubois ordered his 31st Division to despatch two more battalions and a brigade of artillery.

spare), and a copy of a memorandum of ten lines in which Foch urged that no retirement should be made. As French wrote to Haig: "It is useless for me to say this, because I know that you will do it if it is humanly possible."

It was not until after Sir J. French left that Foch issued any orders, and then to his IX Corps. A copy of these was dispatched to G.H.Q., and at 9 p.m. the contents were sent as "secret instructions" to the I and Cavalry Corps. The battle of Ypres, so far as the British share goes, was fought by the brigades and battalions of Sir D. Haig, and during it he received no orders from Sir J. French after the 24th of October, except the first sentence of the above instructions, which merely said, "I Corps and Cavalry Corps will maintain and strongly entrench the line now held." As for the French, their corps commanders had acted long before any orders or instructions reached them from General Foch at Cassel. It was the fighting spirit of the combatant officers and men and the loyal cooperation of the French and British corps commanders which brought about the collapse of the German assaults.

In *La Garde Allemande à la Bataille de Guise, 28-29 Août, 1914* (Paris, Charles-Lavauzelle, 10 francs), Commandant Koeltz has provided an interesting study of the action of German infantry in 1914. He bases his account on German documents, and particularly on the monograph *Die Schlacht bei St. Quentin*.^{*} A good deal of information from the French side was given in the review of Colonel Velarché's *Bataille de Guise*,[†] and the present account will enable those who do not read German to study the action of the Germans and particularly of the Guard Corps, and Commandant Koeltz's criticisms make the book of particular value. It will be recalled that the Guard Corps whilst crossing the Oise and moving southwards came in collision with the French X Corps of the Fifth Army moving westward, and a series of actions took place at Audrigny, Pusieux, Colonnay, Sourd and La Vallée aux Bleds, in which the Germans as a whole got the worse; for the French were quicker than they were in dealing with a surprise situation.

The main point which Commandant Koeltz wishes to make is that in the first weeks of the war the German infantry

"suffered in the same way and in the same measure as the French infantry, because it committed the same errors. Carried away by the offensive spirit, egged on by its chiefs, who did not always leave it the time to act

^{*} Reviewed in the *Army Quarterly*, April, 1923.

[†] Reviewed in the *Army Quarterly*, October, 1928.

with calm and method, it tried to triumph over fire power by movement, rapidity of action, and speed in the execution of the attack ; once engaged, even under unfavourable conditions, it was not stopped, because its officers, fearing to be accused of want of bravery, continued to lead it on and to thrust it forward, always without the support of fire and in spite of losses ; for did not the Field Service Regulations incite them to do so? 'The actions of infantry,' said the regulations (Feld-dienstordnung 1906, paras. 265 and 327) 'must be constantly dominated by this one thought : forward on the enemy, cost what it may.' And again, 'An uninterrupted forward movement and the desire to get ahead of its neighbours should animate all troops in the attack.' "

The mistakes committed by the Guard Corps were many, and the author gives numerous examples of them. The list is most instructive. The principal were : lack of an organized liaison between commanders and the formations and units under them ; imperfect lateral liaison ; defective system of transmission of orders ; failure to try and obtain information about the enemy ; ineffective service of protection ; loss of contact ; inactivity of the cavalry ; complete lack of combat patrols, both infantry and cavalry ; insufficient flank protection ; failure to send back information ; advance of infantry without waiting for artillery support ; and frequent failure of the artillery to support the infantry. They are exactly the mistakes that a manœuvre-trained army, after a long peace, would be likely to make.

To show that his remarks are not mere biased criticisms, Commandant Koeltz prints at length a captured document issued by the Chief of the General Staff of the (German) Field Army, dated the 30th of September, 1914, and signed by Falkenhayn. There is space here only to extract some of its strictures :

- (1) Our infantry, carried away by its ardour, always advanced with such precipitation that our artillery was not in a position to support it.

- (2) Our field artillery was as a rule immediately discovered by the enemy artillery.

- (3) The enemy artillery found our reserves with astonishing rapidity, although they were perfectly concealed.

- (4) The enemy was nearly invisible. His presence was revealed only by fire.

- (5) It is lamentable to see how unskilfully our excellent human material was thrown into the combat in great crowds. . . .

The companies sometimes only resembled vagrant bands animated by a good spirit.

- (6) Battle reports were rarely rendered to the higher leaders.
- (7) The reconnaissance service of the cavalry was often entirely absent. . . . As for infantry reconnaissances, there was no time to make them in view of the haste with which every one had to press on. We therefore marched, trusting to luck, like blind men.
- (8) As regards field fortifications, we were at the beginning most unskilful.
- (9) March discipline was inefficient, particularly in the artillery, divisional troops and infantry transport. . . . There were hopeless blocks in villages and other defiles.
- (10) Halt orders were issued without regard as to whether the localities assigned to units were occupied by the enemy or not.
- (11) Orders which had to go any distance were sent almost exclusively by motor car ; but petrol was often lacking.

The German official monograph *Die Tragödie von Verdun*, 1916, 2 *Theil* (The Tragedy—or, to use our own euphemism for defeat, the “regrettable incident”—of Verdun, 1916, Part 2) (Oldenburg, Stalling, 5.50 marks),* has the sub-heading—which correctly describes its contents—“*Das Ringen um Fort Vaux*” (The Struggle for Fort Vaux). It was quite time that a true account of this appeared from the German side, for the official bulletins issued in 1916 were, the monograph in reproducing them admits, “incorrect and misleading.” They were, in fact, false. This is the only excuse for an entire monograph being devoted to the struggle for Fort Vaux. It was heavy indeed in losses on both sides, but it has no useful lessons. After an abnormally heavy bombardment the Germans entered the fort, but for five days the French garrison under Major Raynal held out valiantly in the underground chambers. It was not until the battles of the Somme had begun to have their effect on the fortunes of Verdun that on the 18th of August the tide began to turn there, and the French regained ground. After suffering a severe bombardment and repelling one infantry

* Part I, dealing with the opening attack, was reviewed in the *Army Quarterly* of January, 1927.

assault, on the 29th of October, the Germans hearing from a prisoner "that the French had brought up a fresh division, the 22nd, which was to assault Fort Vaux anew as soon as the weather was favourable enough," evacuated the fort at 12.30 a.m. on the 2nd of November without further fighting. The honours were with the French, although the monograph explains that the order to evacuate was "received with general regret, every man of the garrison feeling himself part of the fort which had repulsed all assaults." As the fort was abandoned according to plan, the French could not, of course, claim a victory in recapturing it!

The incident of the bulletins are instructive. To quote the monograph :

"The official German army bulletin of the 9th of March announced the result of the fighting around the village and fort of Vaux in the following terms :

" ' East of the river [Meuse] in order to shorten the communications of our position south of Douaumont with the lines in Woëvre, after thorough artillery preparation, the village and armoured super-fortress Vaux [*Panzerfeste* ; it was actually a small detached fort], and the enemy fortifications adjacent were taken by the Posen Reserve Regiments No. 6 and No. 19 under command of the G.O.C. of the 9th Reserve Division, General von Guretzky-Cornitz, in a brilliant night attack.' "

This was simply "lie information." The fort was not taken until the 7th of June, three months later. The monograph provides the following excuse :

"The ground out of which this wrong report grew was prepared by the then prevailing idea of the extraordinary all-destroying effect of German howitzers against the enemy's fortification. Fort Vaux had often been bombarded by the heaviest guns ; hits on all parts of the work had been observed. It was accepted that the fort was only a heap of rubble, and abandoned by the garrison."

There were rumours in the night that it had been taken. The staffs of the 6th and 9th Reserve Divisions became impatient that it should become German. "In this state of mind General von Guretzky-Cornitz received personally on the telephone" from a lieut.-colonel the message that "Captain von Scheeh reports : Have reached (*erreicht*) Fort Vaux at 7 a.m. with three companies." In high delight the divisional commander telephoned to the corps that his troops had taken Fort Vaux. His report brought him from the Kaiser Prussia's highest order, *Pour le Mérite*, awarded also

to the officer who, it has since been discovered, did *not* take Fort Vaux.

The mistakes connected with the bulletin reporting the true capture of the fort are not quite so bad ; but the text claims that the event really happened on the 2nd of June, not the 7th. The bulletin also attributed the success to a single company and a detachment of engineers, instead of four infantry regiments which took part, and named two officers who were *not* the heroes of the success. "The names slipped in by mistake on the telephone on the way between brigade, division and corps." The bulletin naturally caused a lot of ill-feeling and "history owes it to the troops who were overlooked to put matters right." The excuse is again the reading into a report of more than was there. The report in question said that "the gorge of the fort had been reached and put in a state of defence. This made it possible to bring the infantry and pioneers assigned as garrison into the fort"; but the struggle continued four days longer. A most interesting little piece of German war psychology.

The latest German official monograph on the war is *Flandern 1917* (Oldenburg, Stalling, 5.50 marks). It begins with the British attack at Messines on the 7th of June and ends with the attack of the 10th of November. The preface states that the history of this five months' fighting has been compiled, but it has been found impossible to print it as, so many divisions having been engaged, it would take up several volumes :

"Divisions disappeared by dozens in the turmoil of the battle, only to emerge from the witch's chaldron after a short period thinned and exhausted, and often reduced to a miserable remnant, the gaping spaces left by them being filled by fresh divisions."

On the other hand, it was thought that a description of the "greatest material battle of the world war could not be entirely left out." The prepared material was therefore handed over to Herr W. Beumelburg, apparently an artist in words, to prepare a volume in which "the characteristic nature of the Flanders battle was psychologically worked out, in order to give the readers of the series a sensible insight into the tremendous struggle." The author has in consequence produced not a military narrative, but a series of pictures of the battle. A twelve-page summary of the phases of the fighting by a colonel is, however, provided at the end. There are good illustrations and a 1 : 30,000 scale map showing the different British advances.

The following is a specimen of the style and refers to fighting a machine gun :

"The noise of the artillery fire is undiminished, short shots of the German artillery increase.

"Hullo. . . . Now we can let her go !

"The lance-corporal laughing wildly points to the left. A party of about fifteen figures approaches over the shell holes and stumbles towards the emplacement. Two seconds of paralysis.

"Then a shrill cry. Rifle barrels stick up, anxious hands feel for hand-grenades. One little fellow, deathly pale, stands up and tremblingly buckles his belt. A blow on the chest takes him, and he collapses. The adjutant stands over him, his teeth showing with rage.

"Another cry. The lance-corporal waves his arms like a madman. Suddenly he stops, turns round and falls heavily in the emplacement.

"Now the fellows on the left are nearly up.

"The machine gun jams in loading. Cold shivers run up the men's backs. And the approaching men are German after all."

The whole account of the loss of Messines Ridge takes exactly one page. After mentioning the British mines, but not why the German experts failed to detect the British tunnellers, it goes on :

"The 204th (Württemberg), the 35th and 2nd (Prussian), in the act of relief, 3rd (Bavarian) and 40th (Saxon) Divisions, as well as the 4th (Bavarian) Divisions, were struck with full fury. The first line was everywhere overrun. The artillery could scarcely offer resistance. In the 2nd Division only two field howitzers and one superheavy howitzer were firing, the 40th Division still possessed only eight serviceable guns. With three corps, that is twelve divisions, the British had attacked.

"The time-table in hand, the creeping barrage progressing with exactitude before them, the attackers strode upright through the completely devastated position, and met with isolated resistance only in the second.

"Hardly a handful of German machine guns fired. Between 8 and 9 a.m. the line of heights, with both villages, Wytschaete and Messines, are in the hands of the British, the fight for the German retrenchments began."

It is then related how German counter-attacks by four divisions stopped further advance but "achieved only insignificant gain of ground," and ends "the Wytschaete salient was lost with fearful casualties." But the figures are not given.

The constant rain brought intense suffering. "Foot and bowel complaints ravaged the troops."

"On the 3rd of August the 2nd Guard Reserve Division, counting from the 31st of July, had a total of 2,208, of whom 600 were sick. Significant signs of tension manifested themselves in other divisions ; the 38th Division requested relief, it had lost two-thirds of its strength. . . ."

"The shell holes were full to the brim with water. The ground was only passable on the duck walks. Whoever slipped off them sunk in the slush. The British fliers soon spotted them and turned the artillery fire on to them. . . .

"Yet the rain was our Ally, for it hindered the British in the rapid continuation of their great attack. Their guns sank in the slime of the craterfields. Their men were drowned in the swollen and marshy Steenbeek. Their mules with rations and ammunition stuck in the mud, their shells lost their splinter effect in the loose and water-soaked earth."

There is a fearful picture of the plague of rats in Houthulst Forest,

"where a bitter war of the real wild animal kind raged between men and rats. The grey beasts devoured and gnawed everything that was not of iron. They stole the bread, they devoured the bacon, tore the boots and clothes. They bit to pieces the wood of the bedsteads in the dug-outs, chewed the soap, ate maps and letters from home. It was no good putting food into a cupboard, for they gnawed through. It was useless to hang sausages in a string; they bit through the string, or reached the sausage by a greedy jump."

They even disputed the possession of dead horses, when the men came with knives to cut steaks off. And the more that were killed, the more they multiplied.

"Soon they learnt how human flesh tasted . . . so that no fallen man was left alone for more than an hour. Finally they dared even to attack the wounded who could not help themselves. To eat the dead no longer satisfied them, their taste desired warm flesh; they wanted *Ersatz* for the rabbits which had died out."

There is a lurid description, too, of a concrete pillbox overturned by the bombardment, so that its entrance was towards the ground. The inmates were imprisoned as in a sunken submarine; eventually they were dug out by the engineers, and all were found dead.

It is stated that the German Supreme Command was long aware of the British plans. "A Fourth Army Order of the 9th of June impressed on all the imminence of a full-dress British attack in the Ypres front between Boesinghe and the in-the-mean-time-lost Messines ridge." New divisions were pushed into the front from the 10th of June onwards, and fresh counter-attack divisions placed ready. Four fighting groups were organized under the Fourth Army (Sixt von Armin): North group (Marine Corps on the coast); Dixmude Group (XIV Corps: 4 divisions + $1\frac{1}{2}$ counter-

attack divisions); Ypres group (III Bavarian Corps : 3+2), and Wytschaete (IX Corps : 5+3). The three latter were attacked.

Lord Haig's plan is thus described :

" Take a sector of the enemy's front 20 km. wide and 3 km. deep and hammer it for fourteen days with a couple of thousand guns of all calibres. Drench it with a few hundred thousand gas shells ; turn it upside down, so that in all human probability nothing more can be rained into it. Then occupy it, using ten infantry waves one behind the other, protected by a creeping barrage, and escorted by machine guns, tanks and aeroplanes. Next drag up the artillery by echelons through the crater area, and prevent the enemy by uninterrupted drumfire and continuous small attacks from effective counter-action.

" After ten days take another sector 20 km. wide and several km. deep, and repeat the same process. And so on until the objective is reached."

The plan failed—really on account of the unexampled bad weather in August and September—but according to Herr Beumelburz because :

(1) The possession of the crest of Ypres ridge led to no strategic result [Crown-Prince Rupprecht, however, says the British successes at Ypres in 1917 saved the situation there in the spring of 1918] ; (2) the German elastic defence ; (3) the psychological error of the effect of drumfire : " a single machine gun, still capable of firing at the instant of attack, the garrison of a few craters spared by the mad hurricane of shell, a single field gun in a battery detailed to meet an assault, still manned by the desperate fighting survivors of its crew, were sufficient to mow down and annihilate whole attacking battalions. . . . This is the final solution of the scarcely comprehensible puzzle of how it was possible to withstand the attack for four months with so little loss of ground."

Le Six-Trois au feu (Paris, Charles-Lavauzelle, 12 francs), by J. Nouaillac, the former "*porte-drapeau*," of the regiment, and *docteur ès lettres*, is one of the few French regimental histories, as opposed to short *historiques*, that has come to hand. The Regiment, from the Limousin, belonged to the 23rd Division of the XII Corps, originally forming part of the Fourth Army in the centre. Being generally in the centre and east, it never fought near the B.E.F. except in the battle of Artois simultaneous with Loos ; but the book is interesting as containing a regimental account of the Battles of the Frontier, the Marne, Verdun, and the defence of Rheims in 1918.

Combat de Bataillon d'infanterie (Paris, Charles-Lavauzelle, 5 francs) is a very interesting detailed account—with comments so that

it forms a study of infantry work—of the operations of the 2nd Battalion of the 19th Infantry Regiment (22nd Division, XI Corps, Fourth Army under General Gouraud) from the 17th of September to the 11th of November, 1918, in the final advance. Its route was from Suippes in Champagne to Flize on the Meuse, between Sedan and Mézières, and it took part in the battles of Somme-Py, the Arnes, Passage of the Ardennes Canal, and Passage of the Meuse. There are a number of sketch maps.

The history of *Infanterie Regiment No. 126 im Weltkrieg* (Stuttgart, Belser, 12 marks) contains an account of the construction of the Hooze tunnel in the sector of the regiment, a Württemberg unit in the XV Corps, in November-December 1915. This tunnel, 800 metres (half a mile) long, ran under the Menin road right up to the front trenches. The making of it was undertaken because, although the German communication trenches, carefully revetted, stood the weather of the Salient well, they invariably collapsed under bombardment. From the existing communication trench just north of and parallel to the road, headings were driven every 100 metres down under the road, and from there galleries were mined right and left to join up to form a tunnel two metres high, 1.60 metres wide at bottom and 1.20 metres at top. The depth below the road surface is not stated. Work was carried on night and day in three shifts, with half an hour's rest in each. About 80 metres were completed every ten days, four men working on each face.

The regiment lost in the war (killed, died of wounds or sickness occasioned by the war) 126 officers and 4,881 other ranks; that is, more than $1\frac{1}{2}$ times its establishment.

Many of the numerous German regimental histories give the total numbers of killed—in the infantry this is usually a higher figure than the establishment—some give rolls of honour, but that of the *Westphalian Field Artillery Regiment No. 7* (VII Corps) is the first to give the totals of the original strength, reinforcements and casualties. It entered the campaign with 61 officers and 1,325 other ranks, and received as reinforcements 62 and 924. There were killed 21 officers and 357 other ranks; wounded 51 and 811. Besides 4 Knights Crosses of the Hohenzollern House Order, the regiment was awarded 1,438 Iron Crosses; that is, more than the establishment of the unit, or 60 per cent. of the total of officers and men who served in it.

BALKANS

Les Victoires Serbes en 1914 (Paris, Berger-Levrault, 10 francs), by Lieut.-Colonel Desmazes and Commandant Naoumovitch, with a preface by Maréchal Joffre, is a clear military-historical account, with excellent sketch maps, of the defeat of the two Austrian invasions of Serbia in 1914. It is based on the official documents of the Serbian General Staff and the published Austrian official accounts, and therefore gives both sides.

The authors suggest that the selection of the year 1914 for the attack on Serbia was deliberate. She was in a particularly difficult situation. The increase of territory in consequence of the treaty of Bukarest of the 25th of August, 1913, at the end of the Balkan War, had entailed a military reorganization. The Serbian Army, which had consisted of five Active divisions, was in the process of being raised to ten, by the utilization of the recruiting resources of New Serbia. A number of old regiments and cadres had been moved there, and when Austria declared war Old Serbia was nearly empty of troops. As each Active division had on mobilization to form from its territorial resources a Reserve division and units of a third line, the confusion which ensued can be imagined. Just as Germany wanted war because Russia was growing too strong, so Austria desired to settle the Balkan question before Serbian reorganization was completed.

The Serbian frontier presented a right-angled salient towards Austrian territory, one side facing north and the other west. A number of Austrian railways converged on the northern face; but behind the western in Bosnia-Herzegovina there was only one narrow-gauge line. This pointed to the principal enemy effort coming from the north. The Austrians, in fact, in their deployment placed two armies, comprising five corps, on this face, and only two corps in Bosnia-Herzegovina.

The outbreak of hostilities with Russia seven days after the declaration of war on Serbia, and the receipt by Kaiser Franz-Joseph of a telegram from the Kaiser Wilhelm demanding that the former should concentrate the whole of his forces against Russia whilst the German Armies invaded France, threw the Austrian General Staff into great difficulties. They could not upset the railway time-tables and interrupt the movement of troops towards the Serbian frontier; they had to complete the operation and then send divisions in succession from the Balkan group to Galicia; and

all the troops sent, three corps and part of a fourth, two Honved divisions and a cavalry division, had to be taken from the northern face. Instead of 400,000, only 250,000 were available to attack Serbia, who could put into the field, 270,000, certainly greatly dispersed. Besides this, instead of a converging attack from two sides, with the main one from the north, there could only be one, and that from the west, from a most inconvenient base. "The pincers of the vice were opened to crush Serbia, and one of the jaws was first paralysed and then removed." Feldzeugmeister Potiorek, who was in command of the Balkan campaign, never had a chance of success.

The Serbian commander allowed the Austrians to enter the home territory, and then fell on them, and by the 24th of August they had retired in disorder back across the frontier. It was then obviously the best military policy for Austria to cut her losses and stand on the defensive on the Danube and Save, and send every available man against Russia. But defeat by Serbia, whom they had set out to punish, was too irritating for the Vienna politicians. In spite of the protests of Conrad von Hötzendorf, the Chief of the General Staff, they ordered Potiorek to prepare for another invasion of Serbia.

The second Austrian attempt from both sides of the salient of the frontier, the original plan on a smaller scale, seemed at first to show promise of success. The Serbs withdrew before it, and, egged on by Vienna, Potiorek pressed on too fast. The Serbs concentrated, counter-attacked, and completely defeated him, capturing over 40,000 prisoners—about a quarter of the forces engaged—and an enormous amount of material.

Potiorek was made the scapegoat of the double failure ; but it was Austrian policy which was to blame for taking the offensive against Russia and Serbia simultaneously, with insufficient forces for two such operations. The second campaign against Serbia was inexcusable, and is an excellent example of the absurdity of allowing politicians to interfere in military operations. Good strategy pointed to standing on the defensive towards Serbia, which the ground favoured, with a minimum force, and using every possible man and gun against Russia.

GENERAL

Zehn Jahre Fremdherrschaft am deutschen Rhein (Ten Years Foreign Rule on the German Rhine), by K. Wachendorf-Berlin

(Berlin, Hobbing, 7.25 marks), is a history of the Rhine occupation from 1918-1928. It is of course from the German point of view ; but, as it records the various stages, it is a useful book of reference. Forgetting the terms of the armistice and how Germany in 1871-5 occupied various zones of ground in France until the indemnity was paid, evacuating them one by one as the instalments were handed over, the author holds that any occupation of Germany was unjustified because not mentioned in the Wilson 14 points, and because Germany agreed to the armistice in order to bring the war to an end. He further considers that occupation by France is unjustified because she only won the war by American aid. The occupation has certainly lasted a long time, but the remedy open to the French in 1871-5 when they found the occupation irksome, and of which they availed themselves, is open to Germany :—pay up in full. To the reviewer, who, as a boy, saw the German occupation of France, with the conquerors, full of requisitioned French wine, swaggering about with wreaths of oakleaves on their helmets, pushing women off the pavement, breaking down doors and windows, taking goods, wine and food without payment, the contrast of the well-ordered French occupation is most striking. Herr Washdendorf-Berlin should read the accounts of the German occupation of France in 1871-5 and in 1914-18.

In a most erudite and exhaustive work—the bibliography contains a list of some two hundred and fifty books, pamphlets, magazines and newspapers consulted—Dr. Georg Huber has compiled an historical account of French Propaganda in the World War against Germany 1914-1918—*Die Französische Propaganda im Weltkriege gegen Deutschland 1914 bis 1918* (Munich, Pfeiffer, 10 marks). The author promises a further and final volume on the French propaganda from the 9th November, 1918, to the signing of the peace of Versailles.

He begins at the beginning of time :

“ Political propaganda is as old as politics, only the means of propaganda have varied in different ages : in the earliest times its influence was exerted on one's neighbours verbally [possibly enforced by a club].

“ Troubadours and heralds were often the bearers of propaganda. Later came propaganda by the symbol and the picture. The written word in antiquity and in the Middle Ages played only a subordinate rôle . . . ”

and so on down to 1914.

He next under headings (a), (b), (c), (d), (e) and (f), examines

the means available in that year ; the offices of origin, tactics and method, and the objects which the French attacked. He complains bitterly that even before the war "a quite one-sided, not to say false and erroneous, idea of all which was Germany prevailed in France." Possibly this was due, he thinks, to the difference of French and German *Kultur* and to the Germans caring more about "the inner essence of things and little for outward show," whilst the French were impressed by exterior appearances and exterior effect, and so underestimated the value of German *Kultur*.

Thus we have a thoroughly academic account of the light French ridicule of the Boche and his ways, only enlivened by the reproduction of some of the most famous caricatures.

Geschichte der Schweiz während des Weltkrieges 1914-1919 (History of Switzerland during the World War), Vol. I, by Dr. Jacob Ruchti (Berne Paul Haupt, 15 Swiss francs), is a useful book of reference. Besides chapters on Swiss neutrality, representation of foreign interests, sympathies and antipathies, the various "incidents" which occurred, bolshevism in Switzerland and its defeat, the attitude towards peace negotiations and the League of Nations, there is one on the Swiss Army by Colonel Corps Commander Wildbolz. There were 1,839 deaths from influenza among the mobilized troops in the summer and November of 1918 out of 2,035 total deaths. The cost of measures taken to safeguard the Swiss frontier was 1,212,740,000 francs, say £44,000,000. Truly a negligible casualty list and a minute sum of money compared with what the war cost the Belgians, who declined to spend money on the Army or defences in peace and were not ready to prevent an enemy violating their territories. There is hardly a stronger argument against disarmament than the Swiss story.

A Magyar Királyi Honvédség Története 1868-1918, which translated is "The History of the Royal Hungarian Honvéd (that is Reserve) Army" has been prepared by a Committee of the Royal Hungarian War Archives department and issued officially by the Hungarian Minister of National Defence, as a memorial to the army which no longer exists. The coloured and black and white illustrations by Garray are of extraordinary high merit and will delight connoisseurs of military drawings.

Meine Führertätigkeit im Weltkriege, 1914-1916. Belgien—Osten—Balkan. (My work as a Commander in the World War,

1914-1916. Belgium—Eastern Front—Balkans), by General of the Artillery, Max von Gallwitz (Berlin, Mittler, 15.50 marks), is unfortunately of little interest to British readers, as it stops short of the battles of the Somme, in which from the 19th of July to the 17th of December, 1916, he commanded the German Second Army, and to the 28th of August simultaneously the First Army, combined as the Gallwitz Group of Armies, on the British front. After his unsuccessful efforts on that front he was sent to the Verdun—Argonne area, only to be driven back in later years by both French and Americans. He began the war as Commander of the Guard Reserve Corps, which contained one Active and one Reserve division and was one of the two corps sent from Belgium to East Prussia in August, 1914. His book only describes the easy successes against troops who were inferior to the Germans, either numerically or culturally; in Belgium (Siege of Namur); in Russia (the battle of the Masurian Lakes, the advance on Warsaw, the great offensive of 1915); and in the campaign which crushed Serbia. It is founded on his diary, but this he has expanded by additions from the official records, and it provides a valuable account of the operations of first-class troops with modern equipment in countries without roads or railways. The object of the book, however, is made manifest in the last sentence of the preface, in which the author hopes that "what he has described will stir up many a German youth, excite his patriotic feelings and induce him to do his duty as a man and join up."

The author of *Trois Maréchaux, Joffre, Gallieni, Foch* (Paris, Gallimard, 12 francs), Lieut.-Colonel Emile Mayer, was in the same class with Joffre at the Lycée Charlemagne, and at the École Polytechnique with Foch. Leaving the army to take up military journalism and literature, he renewed the ties of friendship with his former schoolmates. With Gallieni he did not become acquainted until 1903. Having seen the three marshals at close range, he has no very high opinion of any of them, but the book nevertheless contains much of interest. He makes it clear that Gallieni was past work owing to ill-health and much service in the tropics before he got to know him.

Joffre is described as a self-contained, self-centred individual, without any particular friends, or—until he "*limoged*" a number of generals in August–September, 1914—any particular enemies. His rise was mainly due to his entering the École Polytechnique at the youngest possible age. He would have passed out high if he had

completed the whole course ; but in consequence of the 1870-1871 war his class was gazetted at the end of one year, and he was 33rd. He married a widow almost immediately, and on her early death took service in the colonies, and obtained rapid promotion. He was a captain at 24, a lieutenant-colonel at 33. As a young man he is described as “ *serviceable, modest, effacé mais depourvu d’élán, sans flamme, sans personnalité.*” As a cadet he gave his whole attention to the course of instruction and read nothing outside it. Later on when he had

“ to construct buildings, open up roads, and make railways, he studied these various special matters, so that he acquitted himself well ; but he remained indifferent to tactics still more to strategy. . . . He had neither the time nor the occasion to instruct himself in them.”

When political circumstances made him, as a solid republican of plebeian origin, a corps commander and vice-president of the *Conseil supérieur de la guerre*, he recognized the inadequacy of his preparation, and set about to remedy it, “ reading the orthodox books as if he were preparing for an examination.” On the day of his appointment to the post which meant that he would be in war generalissimo, when asked by a friend if he felt himself well enough prepared, he replied : “ Perhaps I am not up to it. But I shall work to be in a position to fulfil my duties. No doubt I should have hesitated if I thought that war would break out ; but as we shall not have one. . . .” He cared little about the substance of the papers presented to him for signature, but was very particular about the form and literary style. The General Staff was happy. As the “ Young Turks ” said : “ It doesn’t matter about his insufficiency, we are there all right. We know what to do. He will bear the burden of our decisions and all will go well.”

The author maintains, however, that Joffre is neither the genius nor the puppet he is represented to be. “ His great and strong qualities, which are misunderstood, qualities of character, intelligence and common-sense, are more or less discounted by others which he lacks.”

There is no sketch of Foch as a young man. Colonel Mayer is more interested in showing how he combated Foch’s doctrine in the press, how short Foch’s replies were to his criticisms, and how he was right and Foch wrong. The following is his appreciation of Foch’s character.

“ He had a too high idea of duty to be stopped by any sentiment of fear. Only a scruple of conscience would hold him back. The difficulties

which he encountered only served to exasperate his ardour. He was extremely decided, but without in the least degree being authoritative. He liked to persuade his subordinates rather than force them to obedience. His employment as a professor, which he loved passionately, and his religious faith, gave him the temperament of an apostle. He was at once liberal and intransigent, tolerant, and unshakable in his convictions."

Unlike Joffre, who was silent, he was talkative, and instead of reading only what was required for use in the service, allowed himself an hour a day, even at manœuvres, as he told the author, "to get clear of his professional preoccupation," and read a novel or a book on medicine, history or science, poetry or philosophy, art or administration; it is all the same to me during that hour, provided it is not anything military."

As for his generalship, "he was content to push his armies forward, always forward like Blücher," but, unlike him, he never, even after the battles of the Frontier, had a moment of demoralization. "He put his money always obstinately on the same horse, on the horse of the offensive. . . . However, our generals, holding some of his orders impossible of execution, never even attempted to conform to them." And Foch did not seek to verify whether they had or not.

There are specimens of Foch's handwriting, which show how it developed in firmness and character.

Le Revue d'Histoire de la Guerre Mondiale for April, 1929, contains a complete bibliography, including forewords written by, and reports of interviews of, the late *Maréchal* Foch.

The *Militär Wochenblatt*, which begins its year on the 1st of July, appeared on that date this year in a slightly enlarged form, and on better paper. The first article is by Lieut.-General van Metzsch, who seems to have stepped into the shoes and adopted the methods of General van Bernhardi; it is entitled "Never again such a decade."

REVIEWS AND NOTICES OF RECENT BOOKS AND ARTICLES ON MILITARY SUBJECTS

The Decisive Wars of History : a Study in Strategy. By B. H. LIDDELL HART. G. Bell & Sons, Ltd., Portugal Street, London, W.C.2. Price 12s. 6d. net.

Good wine needs no bush, and Captain Liddell Hart's name implies that what he has written will be, not only original, but something that every good book on war should be, most stimulating of thought.

It is thirty years and more since Admiral Mahan pointed out that war has principles ; " their existence is detected by study of the past, which reveals them in successes and in failures, the same from age to age." At first sight, therefore, it should not be difficult to ascertain these principles. It seems, however, that this is not the case, for the principles derived by Captain Liddell Hart are in some respects unorthodox ; and the reason for this difference of opinion may be that so many things influence action and results, that opinion as to the principal cause of the latter can often as justly differ, according to the angle from which action is viewed, as does the spectacle of a mountain. At any rate, Captain Liddell Hart states that, when carrying out his task as military editor of the *Encyclopædia Britannica*, which involved a survey of military history, " one impression grew ever stronger—that throughout the ages decisive results in war have only been reached when the approach has been indirect." As a consequence of these studies he has also constructed " on fresh foundations a new dwelling-house for strategical thought " ; a structure in which Grand Strategy, whose function is " to coordinate and direct all resources of the nation towards the attainment of the political object," is distinguished from Pure Strategy, " the art of the general." The true aim of the leader being also " not so much to seek battle as to seek a strategic situation so advantageous that if it does not of itself produce a decision, its continuation by battle is guaranteed to do so " ; and the perfection of Pure Strategy " to produce a decision—the destruction of the

enemy's armed forces through their unarming by surrender—without any fighting ” ; which is something more than was achieved at the Caudine Forks (according to Cicero), at Saratoga, York Town, Baillie's disaster in 1799, Ulm, Baylen, and Sedan.

Now the soundness of this doctrine depends mainly on two things : the probability that a concatenation of circumstances and conditions will occur, or be brought about, favourable for such a consummation ; and the manner in which human beings generally react to events. The first seems to be small. As regards the second, a lasting inferiority complex—a common aim of war—is more likely to be produced through fighting than without it. Further, although no one can question that, as the author points out, military theory should nowadays be “ more ready to reconcile its ideals with the inconvenient reality that its military effort rests on a popular foundation ” ; if popular opinion is to be considered, how can it also be said that : “ The soundest strategy of any campaign is to postpone battle . . . ” ? for such postponement may involve invasion, and invasion is what the people pay their armed forces to prevent. It would not be “ supreme artistry ” in a modern general to leave uncovered—as Cromwell did in 1651—a route by which England might be invaded.

It seems to the reviewer, then, that modern conditions favour fighting rather than bloodless victories achieved through manœuvre on land, and that to bring about fighting in circumstances favourable for decisive victory should still be the main goal of pure strategy. But, as Clausewitz wrote : “ The possibility of attaining our purpose by different means is no contradiction, absurdity, nor even error.” Captain Liddell Hart says truly that soldiers must study military history at first hand, because “ the scope and possibilities of direct experience are extremely limited.” And since those soldiers who are candidates for the staff colleges are obliged to study many campaigns, they should be well equipped to form their own opinions on the principles of strategy.

Because the sources of our knowledge in regard to many European and Asiatic campaigns of the Middle Ages may not be very reliable, Captain Liddell Hart omits these from his book but does deal with the classical and mediæval wars that are better known to Europeans. Even so one cannot help wondering whether the information available in regard to these old wars is adequate to enable downright opinions to be formed as to the actions of the leaders. It is difficult enough to find out what took place in the last Great War, new information is constantly coming out, and this, no doubt, is why a few

of the author's statements regarding its first phase in 1914 do not tally with what is said in "*Der Weltkrieg Bearbeitet im Reichsarchiv*" and "*Les armées françaises dans la grande guerre*," and with what has been written by some of those who were then behind the scenes. Also it is a drawback inherent in a book of this character that, although the author has studied the data, exigencies of space force him to omit many of them when stating his conclusions. High policy and maritime and mercantile considerations, for example, considerably affected British strategy in the eighteenth century, and the Polish question reacted decisively on the fortunes of Revolutionary France. Slips of the pen, too, can hardly be avoided when dealing with so many facts; and such a slip is the statement that Wolfe's victory at Quebec in 1759 "encouraged and helped England to send troops directly to Germany, and at Minden these compensated by a victory over the French Frederick's own disasters." Minden, however, was fought six weeks before the capture of Quebec.

Captain Liddell Hart gives a particularly good summary of Napoleon's campaigns in Italy, and of the Peninsular War. But, in regard to the first, can it really be said that Napoleon used "Mantua as a bait to draw successive Austrian forces far from their base and into his jaws"? For Napoleon, in November, 1796, wrote to the Directory: "*Sous peu de jours, nous essayerons un dernier effort* (against Alvinzi). *Si la fortune nous sourit, Mantoue sera pris, at avec lui l'Italie. Renforcé par mon armée de siège, il n'y a rien que je ne puisse tenter.*" Also it is difficult to agree with the suggestion that Wellington should have left the French alone in 1812, "for the wider and longer they were dispersed throughout Spain the more sure and more complete their ultimate collapse." Wellington in 1812 could not have known that Napoleon was going to fail in Russia, and surely both local and general policy forbade a passive attitude while the Russians were being attacked.

On the other hand, there is much force in what Captain Liddell Hart writes, in regard to the American Civil War, of the "pitfalls which underlie the glib use of this popular panacea (concentration) for all military ills." But he is a little hard on Grant's fulfilment of "all the good military precepts of keeping his army well concentrated and of maintaining his objective undeterred by alarms elsewhere." In 1864 the Northerners were growing weary of war, and Grant, therefore, could probably not risk either uncovering Washington and its neighbourhood or even allowing the Southerners to approach it.

The Northern or Gordon Fencibles, 1778-1783. By H. B. MACKINTOSH, M.B.E., F.S.A. Scot. Price 21s.

Printed privately and published in an edition limited to 200 numbered copies, this history has evidently been a labour of love to the author. He explains that it supplements Dr. J. M. Bulloch's "Territorial Soldiering in the North-East of Scotland during 1759-1814," in which there is an account of the Northern Fencibles. The regiment was raised by the fourth Duke of Gordon at the time when France had arrayed herself with the revolted American colonies, and the bold depredations of American and French privateers on the Scottish coast called for special defensive measures.

Men contracted to serve in their own country for the duration of the war. The chapter which follows the career of the regiment, in as much detail as may be, throughout its five years of existence owes much to quotations from the "orderly book" of one of its company commanders. Many interesting glimpses of training, routine, and interior economy are afforded, and these may be taken as typical of the late eighteenth century Regular infantry on which the Fencible regiments were modelled. It would appear that the Northern Fencibles was a "well run" unit according to the standard of the time, the non-commissioned officers being vested with their proper share of responsibility.

From other sources we learn that in the early days of the regiment slackness was not unknown among the subalterns: one, described as "a lad above sixty years of age," is named as inattentive to discipline and orders; another "seems to enjoy his ease and venison" while his captain is "fagged about like a Post horse."

There are two colour plates of the uniforms, and the other illustrations include reproductions of the regimental colours. Biographical notes of the officers, the establishment of a Fencible regiment, and two company muster rolls are among the appendices. There is a very full index, and the printers and binders have done their work admirably.

The 2nd City of London Regiment (Royal Fusiliers) in the Great War.
By Major W. E. GREY. Published by the Regiment. Price 21s.

This bulky and well-produced volume, which is equipped with excellent maps and illustrations, is a good example of personal and regimental enterprise, and presents a typical story of the deeds and experiences of one of those Territorial units which played so

creditable a part in the Great War. The 2nd City of London Regiment sent two battalions overseas. The first battalion, after a spell of garrison duty at Malta, joined the 6th Division in France in time to fight in the Second Battle of Ypres, and was then transferred to the newly-formed 56th Division. As part of this formation it fought with gallantry and distinction at Gommecourt, Combles, and Le Transloy on the Somme in 1916, at Beaurains and in the Scarpe valley at Arras in the following spring, at Langemarck in the summer, and in the autumn at Cambrai. In March, 1918, it took part in the successful repulse of the German attack at Arras and in the subsequent advance to victory, being engaged on the Canal du Nord, at Valenciennes, and on the Sambre. The original second battalion, after relieving its sister unit in Malta, and serving with the Royal Naval Division in Gallipoli, was disbanded in France in February, 1916; the third battalion, now renumbered the Second, proceeded overseas in January, 1917, as part of the 58th Division, and played a worthy part at Bullecourt and Ypres in that year, in the fighting of March, 1918, in the battles of Amiens, the Somme, and Epehy in the late summer, and in the subsequent pursuit to the Scheldt. The battle honours on the colours number twenty-eight, and no less than 376 decorations were won by officers and men on the strength of the regiment. Altogether it proved itself in these four years of war in every way worthy of the traditions of its volunteer days from its first birth away back in 1860, and of the name earned on the battlefields of the Great War of "the Second to Nondons."

1915 *Campaign in France. The Battles of Aubers Ridge, Festubert and Loos. The Operations in Egypt and Palestine, 1914, to June, 1917.* By Lieut.-Colonel A. KEARSEY. Gale and Polden. 3s. each.

The value of books of this nature must always depend largely on the use made of them by the individual student. The author would, no doubt, be the first to admit that they cannot and should not be considered as substitutes for the Official Histories on which they are based; but as introductions to, or convenient *aides-memoires* following on, the study of the larger volumes they undoubtedly have a distinct value, and may for these purposes be recommended. The general plan of each is identical, comprising as it does appreciations of the situation in the theatres of war at various important dates, a diary of events, and a short sketch of the battles, considered in the light of the teaching laid down in Field

Service Regulations. There is also included a useful series of sketch-maps, from which, however, some of the place-names mentioned in the text are omitted. The author has done his work well within the limits he has set himself, and the books should have a definite sphere of usefulness.

All Else is Folly. By PEREGRINE ACLAND. Constable. Price 7s. 6d.

This book, which deals with the war as seen through the eyes of a Canadian infantry subaltern, is said to be the first authentic novel of its kind to come from the Dominions. Major Acland came to France with the first Canadian contingent, and it may be assumed that much of his work is autobiography disguised as fiction. Mr. Ford Madox Ford, himself the author of a notable series of novels on the same theme, bestows very high praise indeed on it, and if one cannot quite share his raptures, it is impossible to deny to it the qualities of vividness and essential truth as a picture of modern war. The story itself runs on somewhat stereotyped lines, and introduces us to the usual stock plot and characters—a man; a number of women, of whom the only one really desired is, and remains to the end, unattainable; war, as we all remember it—trenches, working parties, raids, patrols, “big pushes,” with the usual interludes of drinking and love-making in periods of rest; and at the end of it all, disillusion and disenchantment. But Major Acland’s point of view has a freshness and simplicity all its own. He can draw credible and interesting characters; the episodic form of his narrative suits the tale he has to tell; and his style, easy, readable, and clear, carries the reader swimmingly through his pages. The book is not the great novel of the war we have all been waiting for—and shall possibly never see—but it stands comparison with all but the two or three very best of its kind that have hitherto appeared.

A Subaltern’s War. By CHARLES EDMONDS. (Soldiers’ Tales Series.) Peter Davies. Price 7s. 6d.

This series, which hitherto has consisted of reprints of the more interesting military memoirs of past wars, is now apparently to be extended to comprise narratives of the most recent and greatest war of all. The volume before us certainly well merits the appellation of a soldier’s tale; for it includes, according to the title-page, “candid accounts of two particular battles” (the Somme and Third Ypres) “written shortly after they occurred, and an essay on

militarism," and it is the work of one who proved himself fully worthy, as may be judged even from his own modest narration of his behaviour in action, of the honourable name of soldier. He is not, as many another writer of recent war books seems from his own pages to be, neurotic, weakling, grumbler, or propagandist; he slurs over none of the terror, bestiality, filth, and horror of a soldier's life under modern conditions of fighting; he paints a battle picture as vivid and arresting as any by reason of its very sobriety and matter-of-factness. But he does not believe that all these things were done and endured in vain, nor that those who so did and endured were blind victims of folly or knavery in high places and should take cause therein for shame rather than pride. He does not believe that war is nothing but horror and foulness, nor even that such a crime against humanity can never and will never be repeated on this earth. He points out that in any one average year of war the individual infantryman would spend some hundred days only within range of hostile fire, the remainder being passed in reserve or at rest; so that the strain, though wearing and at times intense, was at least intermittent, while, to set off against that, the times of relaxation were periods of "absolute enjoyment, almost paradisaical." And in the minds of the vast majority of soldiers and ex-soldiers the memories of these halcyon days are no less, perhaps more, vivid than the ghosts of horror and suffering which infest the pages of our latter-day war novelists. Similarly most of us do not consider it "a deed of infamy," as it has been termed by one of the most strident of our anti-militarists, to have participated in the greatest war of all time, as though that war had been a crime and we the arch-criminals; and if we are neither unduly proud of having done so, it is because there was at the time, as Mr. Edmonds remarks, again with perfect truth, "absolutely no other course open to a plain honest man." One may perhaps add that it is a relief to hear at last the voice of a plain honest man raised to tell the true story of his part—a typical part—in the Great War, amid the recent babel of hysteria, propagandism, sadism, and muck-raking, which most of us know to be anything but the whole truth as regards that magnificent, if tragic, epic of human endurance and achievement.

A Short History of the Duke of Cornwall's Light Infantry. Swiss & Co., Devonport. Price 1s.

This is one of the best works of the kind we have seen and we can recommend it as a pattern to those regiments who are not

already in possession of such a book. The story of the campaigns in which this regiment took part is told clearly and well ; there is a chronological table of its services, and in the appendices there is all that a recruit should know of the reasons for, and origin of, the various peculiarities of the uniform, etc., of his regiment.

Copies of this book can be obtained from the Depot, Bodmin.

The Oxfordshire and Buckinghamshire Light Infantry Chronicle, 1928. Slatter & Rose, Ltd., Oxford.

This is the 36th year of issue of this work, which tells the doings during the year of the regiment in both work and play. We wonder why more regiments do not publish such a book.

A Short History of the Buffs. By Captain E. FOSTER HALL. The Medici Society. Price 1s.

This work is all that it should be, and the author is to be heartily congratulated. The history of the campaigns in which the regiment took part is well told although it is compressed into seventy pages. Of particular interest to all is the copy of the warrant authorizing the right of the Buffs to march through the City of London. The book is well printed on good paper, and there are fifteen excellent illustrations reproduced from old prints.

Military Law. By Lieut.-Colonel S. T. BANNING, C.B.E. Gale & Polden, Ltd. Price 8s. 6d. net.

This is the 17th edition of this work which has been brought up to date in every way. It should prove most useful.

History of French Colonial Policy (1870-1925). By STEPHEN H. ROBERTS, M.A., Research Fellow, University of Melbourne. P. S. King & Son, Ltd., 14, Great Smith Street, London, S.W.1. Price 42s.

So many soldiers are concerned at some period of their careers in civil administration that this very able history of French administrative experiences should find a place in every military library even though an atlas, in addition to its numerous maps, is needed when reading it, for not all the places are marked on them.

The book, as the author points out, divides itself into two parts, one containing a general survey of the situation, the other a review of the position in each colony and mandate. In each part the policy

of the French is discussed, its emotional incongruities and inconsistencies, its logical actions and sometimes illogical reactions are traced, and its general outlook is shown, namely, that of viewing the mother country as a machine and the colonies as feeders to it. In the last chapter there is, in addition, a comparative study of French and British methods, with indications of the extent to which French policy was affected by the methods employed by the Germans, Dutch, Belgians and Italians in their dependencies. And the conclusion is that, while France has been successful in conciliating, but not improving, negro populations, her methods tend to alienate Mahommedans, although not to the extent of causing chronic unrest, at present at any rate, in the colonies where they predominate.

Although to soldiers the most interesting parts of the book will be those dealing with French expansion under Gallieni in Madagascar, under Lyautey in Morocco, and under various leaders in West and Equatorial Africa, there is not a single chapter that does not contain some valuable idea or statement. Such, for instance, is the comment that West Africa is suffering not from surplus but from lack of population; that development depends on that present-day anathema capital, and on communications and labour; that in order to stimulate production and eradicate the indolent despair that was killing the natives of Equatorial Africa it was necessary to "introduce the idea of private property, hitherto unknown to these races"; and that land tenure is always a difficult question in Moslem countries because it is so interwoven with religion.

In the chapters regarding Equatorial Africa and West Africa Mr. Roberts does not mince matters when he speaks of the stagnation of the Congo, a stagnation not marked by any hopeful feature; and of the depopulation of West Africa, a psychological not a bodily element, "the price paid by natives all the world over for the mixed benefits of occidental civilization." But he hardly mentions the irritating aggression practised by French officers in the eighteen-nineties against all of the British West African dependencies; an aggression said to have been stimulated by an injudicious speech of the late Lord Salisbury, and responsible for many British measures of occupation and conquest.

No one can read this book without wondering again and again what is to be the outcome of the present European domination of Southern Asia and of almost the whole of Africa. But Marshal Lyautey's policy in Morocco in 1914, which in some ways resembled that of British soldiers during the Indian Mutiny, will remain for ever a shining example of what to do in very difficult circum-

stances. At a time when he was actually engaged in two important military operations, Lyautey received orders from the French Government at the end of July directing him practically to abandon Morocco, with the exception of the principal ports. He, however, wisely "stood firm and openly opposed this point of view. He knew that even to stand still meant defeat, and that if France once started to withdraw that would be the end." Unsupported by French opinion, and with his troops reduced by at least two-thirds, Lyautey then prepared to stake all on his view that the Mahommedan world believes that you are what you seem to be. He, therefore, undertook "an aggressive policy of public works" in the more settled districts to compensate for lack of military power there, and at the same time he went on resolutely with his military measures. "The upshot was that he not only maintained his position during the war years, but . . . pushed forward the roads and railways which were to be the main items in that post-war economic struggle for which he was always preparing."

Further Aspects of Mechanization. By Brigadier-General H. ROWAN-ROBINSON, C.M.G., D.S.O., p.s.c. Wm. Clowes & Sons. 6s. net.

Since the publication of his last book General Rowan-Robinson has continued to follow with critical interest the progress made in the mechanization of the British Army. Previously he wrote from theory; now he is able to draw upon his experience during the 1928 manœuvres as chief umpire of the 3rd Division, which included the Experimental Armoured Force.

He says frankly that his ideas of the employment of the latter differed fundamentally from those of the directors; but probably the directors would be the first to agree with him that our available manœuvre areas are far too cramped to allow of any valuable exercise in the major tactics of swift-moving mechanized formations. This is a difficulty almost incapable of solution if one is to accept the dictum that "the prime necessity is to bring off a battle; and, moreover, to bring it off on government ground and in a given time."

As regards organization, General Rowan-Robinson is confident that we, in common with most foreign armies, are tending towards what he calls motorization—that is to say mere mobility—rather than the true ideal expressed by the term "mechanization"—defined as the creation of a homogeneous mobile armoured fighting force. The medium tank, we are told, should still be regarded as the back-

bone of the force and it should be untrammelled by the addition of unarmoured and less mobile units.

So far the book develops a point of view already expressed by the author in the pages of a service magazine ; the later chapters consider in turn the proper effect of mechanization upon each of the principal arms as they now exist. It is conceded that there are duties, mainly defensive and administrative, in armoured formations which are best carried out by specially trained infantry ; otherwise infantry and armoured vehicles do not mix. There must be many gunners not yet converted to the view that the main artillery weapon should be a light gun in a tank, and that dragon-drawn 18-pounders and field howitzers are too vulnerable and have no effective rôle to perform in future field operations. Cavalry, it is acknowledged, may still be used with armoured units in such country as that of the Indian frontier ; otherwise the horsed regiment had better become an armoured car regiment. Engineer tasks are expected to remain the same in principle, but will have to be carried out at a greater speed and the mechanization of the Corps will easily make this possible.

A separate air force finds no favour with the writer : the aeroplane " is a vehicle just as are the horse and the motor car." Hence the air arm should be fused with the others in the process of evolving the ideal armoured, hard hitting, mobile force which must have its eyes in, and be commanded from, the air.

There is an interesting chapter on the maintenance of a mechanized force in the field, and here the aeroplane and the exploitation of local resources are held capable of doing most towards solving the problem.

During a period like the present, when scientific discoveries and new inventions have, or should have, so much influence upon equipment and tactics, General Rowan-Robinson's constructive criticism of our military policy and his ably sustained theories deserve to be widely read. He will probably have a great deal more to say when the War Office issues a text-book of tactical principles for mechanized operations with tables of war establishments for the forces engaged in such.

James Wolfe : Man and Soldier. By W. T. WAUGH, M.A. Louis Carrier & Co., Montreal, New York and London. Price 21s.

Wolfe's place among our great commanders has always been difficult to determine. He served during the twilight of British

military achievement, dying in a blaze of glory when still a young man ; and his great exploit which gave us Canada was an amphibious operation where small military forces depended for success upon the aid of a powerful fleet. But we do know that he was an excellent regimental officer and battalion commander, a keen student of the higher branches of his profession, and ambitious to rise, and to render, in despite of his delicate health, the highest service which lay in his power. A new biographer who can add a little to what we already know of Wolfe is to be welcomed, and Mr. Waugh, Kingsford Professor of History at McGill University, need offer no apology for his book. He has made full use of the material to be found in the Canadian archives, and presents a well-balanced and conscientious appreciation of a national hero who has, of course, a peculiar interest for Canadians.

In following Wolfe's career through his Continental campaigns, the " '45," and the years spent by him as lieutenant-colonel of a battalion, the letters written by Wolfe to his mother are consistently drawn upon. Perhaps Mr. Waugh is a trifle meticulous in striving to explain every thought and motive as expressed in these epistles, but his deductions are generally fair and reasonable. Written after the failure of the Rochefort expedition, the letter in which Wolfe enunciates the principles upon which combined operations should be conducted is deservedly quoted at length. The account of his share in the successful siege of Louisbourg may confirm some military students in the view that he showed more of his quality here than he did when investing Quebec.

Mr. Waugh might have been more explicit on one point in his description of the events which preceded Wolfe's victory and death on the Plains of Abraham. Having first conceded that the cooperation of the fleet under Admiral Saunders was all that could be desired, he hints that afterwards there were certain difficulties, giving as his authority certain passages in Wolfe's journal which he does not quote.

The Townshend portrait of Wolfe provides an admirable frontispiece, but not every one will find much fun or interest in the caricatures drawn by the same hand. It may be that Townshend's original wording " of the crude and racy flavour of war-time military camps and of eighteenth-century masculine humour " is essential to their proper appreciation. And it is difficult to share Mr. Waugh's enthusiasm for " the last important portrait of Wolfe " if the reproduction in colour has done no injustice to the original.

From the Ivory Coast to the Cameroons. By A. J. REYNOLDS.
Alfred A. Knopf. Price 12s. 6d.

Mr. Reynolds has utilized his opportunities while trekking through the Gold Coast and adjoining colonies during some twenty years' residence in Western Africa to give many suggestive opinions of the effect of European commercial and educational methods and of Christian missionizing on the habits and customs of the intellectually backward negro. His experiences bear out his contention that the training of a people should be carried out in their own country. He rightly appreciates the value of the Achimota experiment and stresses the great responsibility of the members and staff to fit Africans to rule themselves in their own country. The process should not be hurried. He has many humorous anecdotes of the effect of European environment on the native mentality. One example was at hand in that of his own servant, who rejoiced in the name of "Moneysweet" [was he thus christened by Mr. Reynolds ?] and was evidently an attractive character. One of the curiosities of the Gold Coast region is the employment of a pidgin-English as a medium of expression which may be understood by both white and black, among the latter of whom are many different dialects. A characteristic quaint expression was used by a native chief who asked that "pictures might be drawn on him" when he meant that his account at the bank might be drawn on ! Mr. Reynolds' contention that an ill-digested smattering of European teaching is fraught with more harm than good and that there is a limit to the negro mind, is aptly illustrated by a lecture which he heard given by a negro parson educated in England. The parson's presentation of the account of the Creation in pidgin-English should be read to be appreciated. It is evident that Mr. Reynolds has serious doubts of the value of the effect of Christian teaching. Whether Mr. Reynolds was an officer of the Gold Coast Regiment all his service in West Africa is not clear, but he fought with that fine regiment during the conquest of Togoland and of the Cameroons. Mr. Reynolds delves into the past history and into many of the customs of the various parts he visited. His pen is perhaps at its best when portraying the forest and its inmates, for he is a great and appreciative lover of nature.

The book is a collection of articles previously contributed to various magazines and papers and now strung together in chapters, so that his treks are not chronologically arranged. The photographs are good but the map is inadequate for following his journeys.

The Air Annual of the British Empire, 1929. By Squadron Leader C. G. BURGE, O.B.E. Gale & Polden, Ltd. Price 21s. net.

As the author of "The Basic Principles of Air Warfare" we are already familiar with the pen of Squadron Leader Burge. In the volume under review, the first of its kind, he has undertaken a more ambitious task. The objects of the *Air Annual* are to promote the interests of British Aeronautics and record its progress, to keep the public informed and provide a standard work of reference on British Aviation, to promote a wider conception of the future of aircraft in Imperial Defence and in the commercial and economic development of the Empire, and, finally, to assist our aircraft industry abroad by providing reliable data as to its activity and products.

The book is divided into four main parts. Under Empire Aviation are articles on air policy, Imperial Defence and air communications. Under Service Aviation are articles on the Royal Air Force, service aircraft and the air forces of the Dominions. We would suggest that Sir Norman Leslie's able article on Imperial Defence might more aptly be included under the heading of Service Aviation. Part III deals with Civil Aviation in all its manifold aspects and includes some particularly interesting and instructive articles on Air Survey and Photography; of these the article by Major Kennedy Cochran-Patrick on the work of the Aircraft Operating Company is of particular merit. In England, as distinct from the Dominions, few people outside the aviation world realize the immense future for aircraft in surveying and mapping undeveloped countries; moreover, the size and nature of the British Empire offer peculiar scope to the British aircraft industry in this respect. An essential preliminary, however, to the successful exploitation of this necessity is that British aircraft firms should take more trouble to cater for the requirements of the Dominions. There are, happily, signs that our aircraft firms now appreciate this and that, instead of vainly inviting the Dominions to purchase aircraft built to purely English specifications, the Dominions are being offered aircraft which will meet their various climatic and geographical peculiarities.

The final part, The British Aircraft Industry, deals comprehensively with British aircraft and engines and is essentially technical in character. It will form a most useful standard reference on British aeroplanes and engines and should be of value, not only to the Dominions, but to foreign countries meditating the purchase of aircraft whether for service or civil purposes.

We welcome Squadron Leader Burge's first volume and it should certainly assist the industry, as he hopes that it will, in expanding its trade with markets abroad.

LIST OF BOOKS RECEIVED

- "From the Ivory Coast to the Cameroons." By Alexander Jacob Reynolds. Published by Alfred A. Knopf. 12s. 6d. net.
- "History of French Colonial Policy, 1870-1925." By Stephen H. Roberts, M.A. Published by P. S. King & Son. 2 vols. 42s.
- La vie et l'œuvre du Maréchal Foch.* Alfred Costes. Paris.
- "The Air Annual of the British Empire, 1929." Vol. I. Founded and edited by Squadron Leader C. G. Burge, O.B.E., A.R.Ae.S.I. Published by Gale & Polden, Ltd. 21s. net.
- "A Short History of the Duke of Cornwall's Light Infantry." The Depot, Bodmin. 1s. net.
- "Army Health in India." By Lieut.-Colonel John Mackenzie, M.A., M.B., Ch.B., D.P.H., Royal Army Medical Corps. Published by John Bale, Sons, & Danielsson, Ltd. 10s. 6d. net.
- "James Wolfe—Man and Soldier." By W. T. Waugh, M.A. London Agents, Brentano's, Ltd. 21s. net.
- "A Subaltern's War." By Charles Edmonds. Published by Peter Davies, Ltd. 7s. 6d. net.
- "The 2nd City of London Regiment (Royal Fusiliers) in the Great War (1914-19)." By Major W. E. Grey. Published from the Headquarters of the Regiment. 21s.
- "Further Aspects of Mechanization." By Brig.-General H. Rowan-Robinson, C.M.G., D.S.O., *p.s.c.* Published by William Clowes & Sons, Ltd. 6s. net.
- "Sir Douglas Haig's Command, December 19, 1915 to November 11, 1918." Re-issue. By George A. B. Dewar. Assisted by Lieut.-Colonel J. H. Boraston, C.B. Published by Constable & Co., Ltd. Two volumes in one. 21s. net.
- "All Else is Folly." By Peregrine Acland. Published by Constable & Co., Ltd. 7s. 6d. net.
- "The Decisive Wars of History." A study in strategy. By B. H. Liddell Hart. Published by G. Bell & Sons, Ltd. 12s. 6d. net.
- "The Northern or Gordon Fencibles, 1778-1783." By H. B. Mackintosh, M.B.E., F.S.A. Scot. Privately printed by Turnbull & Spears, Edinburgh. 21s. net.
- "The Operations in Egypt and Palestine, 1914 to June, 1917." Illustrating the Field Service Regulations. By A. Kearsey, D.S.O., O.B.E., *p.s.c.*, late Lieut.-Colonel, General Staff. Published by Gale & Polden. 3s. net.
- "1915 Campaign in France." The Battles of Aubers Ridge, Festubert and Loos Considered in Relation to the Field Service Regulations. By A. Kearsey, D.S.O., O.B.E., *p.s.c.*, late Lieut.-Colonel, General Staff. Published by Gale & Polden. 3s. net.
- "Military Law." By Lieut.-Colonel S. T. Banning, C.B.E., *p.s.c.*, LL.B. (Lond.), B.A., LL.D. (R.U.I.). Published by Gale & Polden. 8s. 6d. net.
- "A Short History of the Buffs." By Capt. E. Foster Hall, M.C. Published by the Medici Society. 1s.
- "The White Mutiny." By Sir Alexander Cardew, K.C.S.I. Published by Constable & Co., Ltd. 12s. 6d. net.
- "My Seventy-Five." Journal of a French Gunner (August-September, 1914). By Paul Lintier. Published by Peter Davies, Limited. 7s. 6d.
- "Napier's Rifles." The History of the 5th Battalion 6th Rajputana Rifles. By H. G. Rawlinson. Published by Humphrey Milford. 15s.
- "The Defence of Bowler Bridge." A Study in Minor Tactics. By H. E. Graham. 3s. 6d. net.

PARLIAMENTARY NOTES

MEAT AND FLOUR.—On the 4th of July, in reply to a question by *Brigadier-General Clifton-Brown*, the *Minister of Agriculture and Fisheries* stated that the Government had considered the proposal that the fighting forces at home should be fed on British home-killed meat and bread with a percentage of home-grown flour, but, although they had every desire to benefit the farming industry, they were unable to recommend it owing to the probable effect on food prices. In reply to *Lieut.-Colonel Heneage*, on the 11th of July, the *Secretary of State for War* estimated the extra cost of providing the Army and Royal Air Force at home with fresh meat at roughly £490,000 a year.

CHEMICAL WARFARE EXPERIMENTS.—On the 11th of July, in reply to a question by *Mr. Graham White*, the *Secretary of State for War* supplied information as to the number of animals and birds used for experimental purposes at the Chemical Warfare Experimental Station. The total number used between November 1st, 1926, and July 8th, 1928, was 1,355, of which 410 were rabbits, 589 guinea-pigs and 153 mice. Of the total, 451 were killed by the experiments; none had to be destroyed afterwards as a result of the effects of the experiments.

AIR FORCE EXPENDITURE.—On the 17th of July, in reply to a question by *Sir J. Power*, the *Under Secretary of State for Air* informed the House that, as far as was possible to calculate, the expenditure on air services, civil and military, for 1929 by the United States, France and Italy showed the following approximate percentage increases over the corresponding figures for 1924; United States 160, France 90, Italy 55.

ALDERSHOT TATTOO.—On the 19th of July, in reply to a question by *Mr. Day*, the *Secretary of State for War* announced that 5,000 troops took part in the Aldershot Tattoo and in addition 100 non-commissioned officers acted as ushers. No additional pay was given as the troops worked voluntarily for charity. The profits were estimated to amount to about £30,000 and were administered by the Aldershot Command Trust for the maintenance of charities and the provision of recreational facilities.

CHINA.—On the 23rd of July, in reply to a question by *Mr. Harris*, the *Secretary of State for War* informed the House that there were at present six British and one Indian battalion in China, distributed at Hong-Kong, Shanghai and in the Tientsin Area.

OVERSEAS SETTLEMENT.—On the 23rd of July, in reply to a question by *Mr. Day*, the *Secretary of State for War* stated that during the past year 141 single soldiers and three married soldiers with their families had completed training at the Army Vocational Training Centre at Chisleton. Of these 70 single and 3 married soldiers with their families proceeded direct from the Centre to the Dominions.

OFFICERS' TRAINING CORPS.—On the 25th of July, in reply to a question by *Mr. Wise*, the *Secretary of State for War* informed the House that the estimated cost to the taxpayer for the current year of the Officers' Training Corps attached to public and other schools was £75,000.

APPENDIX

[*Supplied from official sources with the permission of the Controller of His Majesty's Stationery Office.*]

I. THE ARMY

1. ARMY COUNCIL

The Rt. Hon. Thomas Shaw, C.B.E., M.P., *Secretary of State for War* (*President of the Army Council*).

The Earl de la Warr, *Parliamentary Under-Secretary of State for War* (*Vice-President of the Army Council*).

Field-Marshal Sir George F. Milne, G.C.B., G.C.M.G., D.S.O., D.C.L., LL.D., Col. Comdt. R.A. (Master Gunner, St. James's Park), *p.s.c.*, *Chief of the Imperial General Staff* (*First Military Member*).

General Sir Walter P. Braithwaite, G.C.B., *p.s.c.*, *A.D.C.*, *Adjutant-General to the Forces* (*Second Military Member*).

Lieutenant-General Sir W. Hastings Anderson, K.C.B., *p.s.c.*, *Quarter-Master General to the Forces* (*Third Military Member*).

Lieutenant-General Sir Webb Gillman, K.C.B., K.C.M.G., D.S.O., *p.s.c.*, *Master-General of the Ordnance* (*Fourth Military Member*).

E. Shinwell, Esq., M.P., *Financial Secretary of the War Office* (*Finance Member*).

Sir Herbert J. Creedy, K.C.B., K.C.V.O., *Permanent Under-Secretary of State for War* (*Secretary of the Army Council*).

2. DEPARTMENTS OF THE WAR OFFICE

Secretary of State for War

The Rt. Hon. Thomas Shaw, C.B.E., M.P.

Military Secretary to the Secretary of State for War. Major-General Sir G. F. Boyd, K.C.B., C.M.G., D.S.O., D.C.M., *p.s.c.*

Judge Advocate-General. Sir F. Cassel, Bart., K.C.

Chief of the Imperial General Staff

Field-Marshal Sir George F. Milne, G.C.B., G.C.M.G., D.S.O., D.C.L., LL.D., Col. Comdt. R.A. (Master Gunner St. James's Park), *p.s.c.*

Director of Military Operations and Intelligence. Major-General J. R. E. Charles, C.B., C.M.G., D.S.O., *p.s.c.*

Director of Staff Duties. Major-General C. Bonham-Carter, C.B., C.M.G., D.S.O., *p.s.c.*

Director of Military Training. Major-General H. H. S. Knox, C.B., D.S.O., *p.s.c.*

Adjutant General to the Forces

General Sir Walter P. Braithwaite, K.C.B., *p.s.c.*, A.D.C.

<i>Director of Recruiting and Organisation.</i>	Major-General W. W. Pitt-Taylor, C.B., C.M.G., D.S.O., <i>p.s.c.</i>
<i>Director of Personal Services.</i>	Major-General G. S. Clive, C.B., C.M.G., D.S.O., <i>p.s.c.</i>
<i>Director-General, Army Medical Service.</i>	Lieut.-General Sir M. H. G. Fell, K.C.B., C.M.G., F.R.C.S., K.H.P.

Quarter-Master General to the Forces

Lieutenant-General Sir W. Hastings Anderson, K.C.B., *p.s.c.*

<i>Director of Movements and Quarters.</i>	Major-General E. Evans, C.B., C.M.G., D.S.O.
<i>Assistant Director of Re-mounts.</i>	
<i>Director of Supplies and Transport.</i>	E. Gibb, C.B., C.M.G., C.B.E., D.S.O.
<i>Director of Works.</i>	Major-General P. G. Grant, C.B., C.M.G.
<i>Director-General, Army Veterinary Services.</i>	Major-General H. T. Sawyer, C.B., D.S.O.

Master General of the Ordnance

Lieutenant-General Sir Webb Gillman, K.C.B., K.C.M.G., D.S.O., *p.s.c.*

<i>Director of Artillery.</i>	Brigadier H. R. W. M. Smith, C.B.E., D.S.O.
<i>Director of Mechanization.</i>	Major-General S. C. Peck, C.B., D.S.O., <i>p.a.c.</i>
<i>Director of Ordnance Services.</i>	Major-General C. D. R. Watts, C.B., C.M.G.
<i>Director - General of Factories.</i>	T. Towsend, Esq., C.B.E., A.C.A.

Parliamentary Under-Secretary of State for War

Parliamentary Under-Secretary of State for War. The Earl de la Warr.

<i>Director-General of the Territorial Army.</i>	Lieutenant-General Sir Reginald B. Stephens, K.C.B., C.M.G., <i>p.s.c.</i>
<i>Comptroller of Lands.</i>	H. G. Goligher, Esq., C.B.E. (<i>Assistant Secretary</i>).

Financial Secretary of the War Office

<i>Financial Secretary.</i>	E. Shinwell, Esq., M.P.
<i>Director of Army Contracts.</i>	Sir N. F. B. Osborn, K.B.E., C.B. (<i>Assistant Under-Secretary of State</i>).

Permanent Under-Secretary of State for War

<i>Permanent Under-Secretary of State for War and Accounting Officer.</i>	Sir Herbert J. Creedy, K.G.B., K.C.V.O.
<i>Deputy Under-Secretary of State.</i>	J. B. Crosland, Esq., C.B.
<i>Assistant Under-Secretary of State.</i>	A. E. Widdows, Esq., C.B.
<i>Chaplain-General.</i>	Rev. A. C. E. Jarvis, C.M.G., M.C., D.D.

3. COMMANDS OF THE ARMY AT HOME**A.—ALDERSHOT COMMAND**

<i>General Officer Commanding-in-Chief.</i>	Lieut.-General Sir D. G. M. Campbell, K.C.B.
<i>Brigadier, General Staff.</i>	Brigadier J. E. S. Brind, C.B., C.M.G., D.S.O., <i>p.s.c.</i> , A.D.C.
<i>Major-General in charge of Administration.</i>	Major-General J. C. Harding Newman, C.B., C.M.G., <i>p.s.c.</i>
<i>1st Cavalry Brigade.</i>	Brigadier W. T. Hodgson, D.S.O., M.C.
<i>1st Air Defence Brigade.</i>	Brigadier E. F. Shewell, C.M.G., D.S.O.
<i>1st Division.</i>	Major-General F. F. Ready, C.B., C.S.I., C.M.G., D.S.O., <i>p.s.c.</i>
<i>1st Infantry (Guards) Brigade.</i>	Brigadier B. N. Sergison-Brooke, C.M.G., D.S.O., <i>p.s.c.</i>
<i>2nd Infantry Brigade.</i>	Brigadier A. J. McCulloch, D.S.O., D.C.M., <i>p.s.c.</i>
<i>3rd Infantry Brigade.</i>	Brigadier G. Thorpe, C.M.G., D.S.O., <i>p.s.c.</i>
<i>C.R.A. 1st Division.</i>	Brigadier J. G. B. Allardyce, C.M.G., D.S.O.
<i>2nd Division.</i>	Major-General T. A. Cubitt, C.B., C.M.G., D.S.O., <i>p.s.c.</i>
<i>4th Infantry Brigade (Guards).</i>	<i>See under London District.</i>
<i>5th Infantry Brigade.</i>	Brigadier R. J. F. Hayter, C.B., C.M.G., D.S.O., <i>p.s.c.</i> , A.D.C.
<i>6th Infantry Brigade.</i>	Brigadier R. D. F. Oldman, C.B., C.M.G., D.S.O., A.D.C.
<i>C.R.A. 2nd Division.</i>	Brigadier W. Stirling, C.M.G., D.S.O.

B.—EASTERN COMMAND

<i>General Officer Commanding-in-Chief.</i>	General Sir R. D. Whigham, K.C.B., K.C.M.G., D.S.O., <i>p.s.c.</i>
<i>Brigadier, General Staff.</i>	Brigadier A. E. McNamara, C.B., C.M.G., D.S.O., <i>p.s.c.</i>
<i>Major-General in charge of Administration.</i>	Major-General C. G. Fuller, C.B., C.M.G., D.S.O., <i>p.a.c.</i>
<i>4th Division</i>	Major-General A. R. Cameron, C.B., C.M.G., <i>p.s.c.</i>
<i>10th Infantry Brigade.</i>	Brigadier F. H. Stapleton, C.M.G.
<i>11th Infantry Brigade.</i>	Brigadier W. J. N. Cooke-Collis, C.B., C.M.G., D.S.O.
<i>12th Infantry Brigade.</i>	Brigadier E. B. Hankey, C.B., D.S.O.
<i>C.R.A. 4th Division.</i>	Brigadier V. Asser, C.M.G., D.S.O.
<i>28th Air Defence Brigade.</i>	Colonel L. H. Queripel, C.M.G., D.S.O.
<i>54th (East Anglian) Division.</i>	Major-General Sir T. G. Matheson, K.C.B., C.M.G.
<i>161st (Essex) Infantry Brigade.</i>	Colonel Sir F. C. Rasch, Bt., T.A.
<i>162nd (East Midland) Infantry Brigade.</i>	Colonel Sir H. Wake, Bt., C.M.G., D.S.O., <i>p.s.c.</i>
<i>163rd (Norfolk and Suffolk) Infantry Brigade.</i>	Colonel R. S. Allen, D.S.O., <i>p.s.c.</i>
<i>C.R.A. 54th Division.</i>	Colonel O. M. Harris, D.S.O.
<i>44th (Home Counties) Division.</i>	Major-General H. R. Peck, C.B., C.M.G., D.S.O.
<i>131st (Surrey) Infantry Brigade.</i>	Colonel the Lord Roundway, C.M.G., D.S.O., M.V.O.
<i>132nd (Middlesex and Sussex) Infantry Brigade.</i>	Colonel H. C. W. H. Wortham, C.M.G., D.S.O.
<i>133rd (Kent and Sussex) Infantry Brigade.</i>	Colonel H. E. R. R. Braine, C.M.G., D.S.O., <i>p.s.c.</i>
<i>C.R.A. 44th Division.</i>	Colonel M. Crofton, D.S.O.

C.—LONDON DISTRICT

<i>General Officer Commanding.</i>	Major-General C. E. Corkran, C.B., C.M.G., <i>p.s.c.</i>
<i>General Staff Officer 2nd Grade.</i>	Lt.-Col. A. F. Smith, D.S.O., M.C., <i>p.s.c.</i>
<i>4th Infantry Brigade (Guards).</i>	Colonel C. P. Heywood, C.M.G., D.S.O., <i>p.s.c.</i>
<i>(At training and manœuvres.)</i>	
<i>26th (London) Air Defence Brigade.</i>	Colonel A. F. Thomson, D.S.O.
<i>56th (1st London) Division.</i>	Major-General H. Isacke, C.B., C.S.I., C.M.G., <i>p.s.c.</i>
<i>167th (1st London) Infantry Brigade.</i>	Colonel F. G. Alston, C.M.G., D.S.O.

C.—LONDON DISTRICT—*continued*

168th (2nd London) Infantry Brigade.	Colonel P. R. O. A. Simner, D.S.O., T.A.
169th (3rd London) Infantry Brigade.	Colonel Lord H. C. Seymour, D.S.O.
C.R.A. 56th (1st London) Division.	Colonel C. W. W. McLean, C.M.G., D.S.O.
27th (London) Air Defence Brigade.	Colonel C. Buckle, C.B.E., T.A.
47th (2nd London) Division.	Major-General L. C. L. Oldfield, C.B., C.M.G., D.S.O.
140th (4th London) Infantry Brigade.	Colonel Hon. H. R. L. G. Alexander, D.S.O., M.C., <i>p.s.c.</i>
141st (5th London) Infantry Brigade.	Colonel F. S. Montague-Bates, C.B., C.M.G., D.S.O.
142nd (6th London) Infantry Brigade.	Colonel R. E. K. Leatham, D.S.O.
C.R.A. 47th (2nd London) Division.	Colonel B. B. Colbeck, D.S.O.

D.—NORTHERN COMMAND

General Officer Commanding-in-Chief.	Lieut.-General Sir C. D. Shute, K.C.B., K.C.M.G., <i>p.s.c.</i>
General Staff Officer, 1st Grade.	Colonel K. G. Buchanan, C.M.G., D.S.O., <i>p.s.c.</i>
Brigadier in charge of Administration.	Brigadier Sir R. S. May, K.B.E., C.B., C.M.G., D.S.O., <i>p.s.c.</i>
13th Infantry Brigade.	Brigadier W. A. Blake, C.M.G., D.S.O.
5th Cavalry Brigade.	Colonel F. P. Hurndall, M.C.
6th Cavalry Brigade.	Colonel H. C. L. Howard, C.M.G., D.S.O., <i>p.s.c.</i>
50th (Northumbrian) Division.	Major-General H. W. Newcome, C.B., C.M.G., D.S.O.
149th (Northumberland) Infantry Brigade.	Colonel W. St. A. Warde-Aldam, D.S.O.
150th (York and Durham) Infantry Brigade.	Colonel H. W. B. Thorp, D.S.O., <i>p.s.c.</i>
151st (Durham) Light Infantry Brigade.	Colonel G. H. Stobart, C.B.E., D.S.O., T.A.
C.R.A. 50th (Northumbrian) Division.	Colonel O. C. Niven, D.S.O.
49th (The West Riding) Division.	Major-General N. J. G. Cameron, C.B., C.M.G., <i>p.s.c.</i>
146th (1st West Riding) Infantry Brigade.	Colonel M. R. Walsh, C.M.G., M.C., <i>p.s.c.</i>
147th (2nd West Riding)	Colonel S. Rhodes, D.S.O., T.D.
148th (3rd West Riding) Infantry Brigade.	Colonel D. S. Branson, D.S.O., M.C., T.D., T.A.
C.R.A. 49th (The West Riding) Division.	Colonel K. G. Campbell, D.S.O.

D.—NORTHERN COMMAND—*continued*

46th (<i>The North Midland Division.</i>)	Major-General Sir P. O. Hambro, K.B.E., CB., C.M.G., <i>p.s.c.</i>
137th (<i>Staffordshire Infantry Brigade.</i>)	Colonel H. Clive, O.B.E., T.D., T.A.
138th (<i>Lincolnshire and Leicestershire Infantry Brigade.</i>)	Colonel G. H. Martin, C.M.G., D.S.O., O.B.E., <i>p.s.c.</i>
139th (<i>Sherwood Foresters Infantry Brigade.</i>)	Colonel J. Harington, C.B., C.M.G., D.S.O.
C.R.A. 46th (<i>North Midland Division.</i>)	Colonel F. G. West, D.S.O.

E.—NORTHERN IRELAND DISTRICT

General Officer Commanding.	Major-General A. G. Wauchope, C.B., C.M.G., C.I.E., D.S.O.
General Staff Officer 2nd Grade.	Major R. M. Watson, D.S.O., <i>p.s.c.</i>

F.—SCOTTISH COMMAND

General Officer Commanding-in-Chief.	Lieutenant-General Sir W.E. Peyton, K.C.B., K.C.V.O., D.S.O., <i>p.s.c.</i>
General Staff Officer, 1st Grade.	Colonel R. S. McClinlock, D.S.O., <i>p.s.c.</i>
Brigadier in charge of Administration.	Brigadier E. N. Broadbent, C.B., C.M.G., D.S.O.
51st (<i>Highland Division.</i>)	Major-General Sir W. M. Thompson, K.C.M.G., C.B., M.C.
152nd (<i>Seaforth and Cameron Infantry Brigade.</i>)	Colonel Hon. I. M. Campbell, D.S.O., T.D., T.A.
153rd (<i>Black Watch and Gordon Infantry Brigade.</i>)	Colonel Sir J. L. G. Burnett of Leys, Bart., C.M.G., D.S.O.
154th (<i>Argyll and Sutherland Infantry Brigade.</i>)	Colonel Sir N. A. Orr-Ewing, Bart., D.S.O.
C.R.A. 51st (<i>The Highland Division.</i>)	Colonel C. B. Clark, D.S.O.
52nd (<i>Lowland Division.</i>)	Major-General H. F. Thuillier, C.B., C.M.G.
155th (<i>East Scottish Infantry Brigade.</i>)	Colonel C. P. James, D.S.O.
156th (<i>West Scottish Infantry Brigade.</i>)	Colonel W. Allason, D.S.O.
157th (<i>Highland Light Infantry Brigade.</i>)	Colonel C. H. I. Jackson, D.S.O.
C.R.A. 52nd (<i>The Lowland Division.</i>)	Colonel A. M. Duthie, D.S.O., O.B.E.

G.—SOUTHERN COMMAND

<i>General Officer Commanding-in-Chief.</i>	Lieutenant-General Sir A. A. Montgomery-Massingberd, K.C.B., K.C.M.G., <i>p.s.c.</i>
<i>Brigadier, General Staff.</i>	Brigadier R. M. Luckock, C.M.G., D.S.O., <i>p.s.c.</i>
<i>Major-General in charge of Administration.</i>	Major-General A. A. McHardy, C.B., C.M.G., D.S.O., <i>p.s.c.</i>
<i>2nd Cavalry Brigade.</i>	Brigadier J. Blakiston-Houston, D.S.O., <i>p.s.c.</i>
<i>3rd Division.</i>	Major-General Sir J. T. Burnett-Stuart, K.B.E., C.B., C.M.G., D.S.O., <i>p.s.c.</i>
<i>7th Infantry Brigade.</i>	Brigadier C. C. Armitage, C.M.G., D.S.O., <i>p.s.c.</i>
<i>8th Infantry Brigade.</i>	Brigadier C. J. C. Grant, D.S.O., <i>p.s.c.</i>
<i>9th Infantry Brigade.</i>	Brigadier G. W. Howard, C.M.G., D.S.O., <i>p.s.c.</i>
<i>C.R.A. 3rd Division.</i>	Brigadier R. G. Finlayson, C.M.G., D.S.O., <i>p.s.c.</i> , A.D.C.
<i>48th (South Midland) Division.</i>	Major-General T. T. Pitman, C.B., C.M.G.
<i>143rd (Warwickshire) Infantry Brigade.</i>	Colonel R. S. Popham, C.M.G., D.S.O.
<i>144th (Gloucestershire and Worcs.) Infantry Brigade.</i>	Colonel H. D. Buchanan-Dunlop, C.M.G., D.S.O.
<i>145th (South Midland) Infantry Brigade.</i>	Colonel E. R. Clayton, C.M.G., D.S.O., <i>p.s.c.</i>
<i>C.R.A. 48th (South Midland) Division.</i>	Colonel R. W. N. Bourchier, D.S.O.
<i>43rd (Wessex) Division.</i>	Major-General Sir G. D. Jeffreys, K.C.V.O., C.B., C.M.G.
<i>128th (Hampshire) Infantry Bgde.</i>	Colonel E. G. St. Aubyn, D.S.O., T.A.
<i>129th (South Wessex) Infantry Brigade.</i>	Colonel J. E. Gibbs, M.C.
<i>130th (Devon and Cornwall) Infantry Brigade.</i>	Colonel A. B. Incledon-Webber, C.M.G., D.S.O.
<i>C.R.A. 43rd (Wessex) Division.</i>	Colonel W. D. Stillwell, D.S.O.

H.—WESTERN COMMAND

<i>General Officer Commanding-in-Chief.</i>	Lieutenant-General Sir C. F. Romer, K.C.B., K.B.E., C.M.G., <i>p.s.c.</i>
<i>General Staff Officer, 1st Grade.</i>	Colonel R. N. Dick, C.M.G., D.S.O., <i>p.s.c.</i>
<i>Brigadier in charge of Administration.</i>	Brigadier R. F. A. Hobbs, C.M.G., D.S.O., <i>p.s.c.</i>
<i>53rd (Welsh) Division.</i>	Major-General C. P. Deedes, C.B., C.M.G., D.S.O., <i>p.s.c.</i>

H.—WESTERN COMMAND—*continued*

- 158th (Royal Welch) Colonel C. C. Norman, C.M.G., D.S.O.
Infantry Brigade.
- 159th (Welsh Border) Colonel C. S. Owen, C.M.G., D.S.O.
Infantry Brigade.
- 160th (South Wales) Colonel L. I. G. Morgan-Owen, C.M.G.,
 C.B.E., D.S.O., *p.s.c.*
Infantry Brigade.
- C.R.A. 53rd (Welsh) Colonel N. G. M. Jervis, D.S.O.
Division.
- 55th (West Lancashire) Major-General H. W. Higginson, C.B.,
Division. D.S.O.
- 164th (North Lancashire) Colonel F. H. Dansey, C.M.G., D.S.O.
Infantry Brigade.
- 165th (Liverpool) Infantry Colonel M. O. Clarke, D.S.O., *p.s.c.*
Brigade.
- 166th (South Lancashire and Cheshire) Infantry Colonel M. G. Taylor, C.M.G., D.S.O., *p.s.c.*
Brigade.
- C.R.A. 55th (West Lancashire) Division. Colonel D. J. C. E. Sherlock, D.S.O.
- 42nd (East Lancashire) Major-General W. H. Beach, C.B., C.M.G.,
Division. D.S.O.
- 125th (Lancashire Fusiliers) Brigade. Colonel G. N. Heath, D.S.O., T.D., T.A.
- 126th (East Lancashire and Border) Infantry Bgde. Colonel G. D. Jebb, C.M.G., C.B.E., D.S.O.,
p.s.c.
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- C.R.A. 42nd (East Lancashire) Division. Colonel H. de C. Martelli, C.B., D.S.O.,
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Lt.-Governor and Commanding the Troops. Major-General the Lord Ruthven, C.B.,
 C.M.G., D.S.O., *p.s.c.*

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4. DISTRIBUTION OF REGULAR UNITS OF THE ARMY

A.—Cavalry Regiments

Regiment.	Station.	Commanding Officer.	Remarks.
The Life Guards	Regent's Park	Lt.-Col. L. H. Hardy, M.C.	
Royal Horse Guards (The Blues)	Windsor	Lt.-Col. Lord A. R. Innes-Ker, D.S.O.	
1st King's Dragoon Guards	Aldershot	Lt.-Col. S. Howes, D.S.O., M.C.	For Tidworth.
The Queen's Bays (2nd Dragoon Gds.)	Tidworth	Lt.-Col. C. A. Heydeman, M.C., <i>p.s.c.</i>	
3rd Carabiniers (Prince of Wales's Dragoon Guards)	Tidworth	Lt.-Col. F. W. Bullock Marsham, D.S.O., M.C., <i>p.s.c.</i>	For Canterbury.
4th-7th Dragoon Guards	Sialkot	Lt.-Col. E. M. Dorman, D.S.O., M.C.	For Shorncliffe.
5th Inniskilling Dragoon Guards	York	Lt.-Col. J. A. Brooke.	
1st The Royal Dragoons	Egypt	Lt.-Col. E. W. T. Miles, M.C.	For Secunderabad.
The Royal Scots Greys (2nd Dragoons)	Edinburgh	Lt.-Col. A. I. MacDougall, D.S.O., M.C.	For Tidworth.
3rd The King's Own Hussars	Lucknow	Lt.-Col. W. R. Tylden-Wright, D.S.O., <i>p.s.c.</i>	
4th Queen's Own Hussars	Meerut	Lt.-Col. H. E. Macfarlane, D.S.O., M.C., <i>p.s.c.</i>	
7th Queen's Own Hussars	Colchester	Lt.-Col. T. A. Thornton	
8th King's Royal Irish Hussars	Rhine	Lt.-Col. H. L. Jones, D.S.O., <i>p.s.c.</i>	For Aldershot
9th Queen's Royal Lancers	Bolarum	Lt.-Col. G. F. Reynolds, M.C., <i>p.s.c.</i>	For Sialkot
10th Royal Hussars (Prince of Wales's Own)	Egypt	Lt.-Col. V. J. Greenwood, M.C.	
11th Hussars (Prince Albert's Own)	Aldershot	Lt.-Col. A. L. I. Friend, M.C.	
12th Royal Lancers (Prince of Wales's)	Egypt	Lt.-Col. H. V. S. Charrington, M.C., <i>p.s.c.</i>	
13th-18th Hussars	Shorncliffe	Lt.-Col. J. H. Lumley, M.C., <i>p.s.c.</i>	For Egypt.
14th-20th Hussars	Aldershot	Lt.-Col. C. G. Darley, D.S.O.	
15th-19th Hussars	Risalpur	Lt.-Col. J. Godman.	
16th-5th Lancers	Tidworth	Lt.-Col. J. L. Cheyne, M.C., <i>p.s.c.</i>	For Edinburgh.
17th-21st Lancers	Hounslow	Lt.-Col. V. N. Lockett.	

B.—Royal Regiment of Artillery

Stations of Units.

Brigades, Royal Horse Artillery.

Brig.	H.Q. and Batteries.	—	Brig.	H.Q. and Batteries.	—
1	H.-Q. A. O B	Aldershot (for Newport, Mon.) { Aldershot (for Trowbridge)	3 (etd.)	J	Newport (Mon.) (for St. John's Wood)
2	H.-Q. K C L	Abbassia { Egypt	Unbrlg.	E G N I M	Risalpur Secunderabad Sialkot Meerut St. John's Wood (for Aldershot)
3	H.-Q. F D	Newport (Mon.) (for Aldershot) { Trowbridge (for Aldershot)			

Field Brigades, Royal Artillery.

1	H.-Q. 11 (H) 52, 80 (H), 98	Quetta Hyderabad (Sind)	17	H.-Q. 10 13, 26, 92 (H)	Colchester
2	H.-Q. 35 (H) 42, 53, 87	Larkhill	18	H.-Q. 93, 94, 95 (H), 59	Woolwich
3	H.-Q. 18, 62, 65 (H)	Exeter	19	H.-Q. 97	Wiesbaden (for Newcastle)
4	75 H.-Q. 7, 14, 66 4 (H)	Bristol Aldershot (for Rawalpindi) { Aldershot (for Campbellpore)		29 H	Wiesbaden (for Sheffield)
5	H.-Q. 63, 64, 73, 81 (H)	Shorncliffe		96	Wiesbaden (for Larkhill)
6	H.-Q. 69, 74, 77, 79 (H)	Bordon		39	Larkhill (for Newcastle)
7	H.-Q. 9, 17, 16, 43 (H)	Bordon	20	H.-Q. 41 45 (H) 67, 99	Catterick
8	H.-Q. H (H) V, W, X	Brighton	21	H.-Q. Z. P	Catterick
9	H.-Q. 19, 20, 28, 76 (H)	Bulford	(Army)	Q (H) Y	
10	H.-Q. 51, 54 30 (H), 46	Deepcut	22	H.-Q. 33, 55 (H)	Rawalpindi (for Edinburgh)
11	H.-Q. 78 (H) 83, 84, 85	Aldershot		32 36 (H)	Campbellpore (for Dunbar)
12	H.-Q. 6 23 49 (H) 91 (H)	Lahore Jullundur { Lahore Ferozepore	23	H.Q. 60 90 (H) 100 (H)	Jubbulpore
13	H.Q. 8, 44 82 (H)	Edinburgh	24	89 H.Q. 70, 22 56 (H)	Nasirabad Lucknow Fyzabad Cawnpore Nowshera
14	H.-Q. 68, 88 (H) 38, 61 (H)	Dunbar Bangalore	25	50 H.-Q. 12, 25, 58	Peshawar
15	H.-Q. T, U R, S (H)	Kirkee Secunderabad	26	31 (H) H.-Q. 40 (H) 48, 71	Bulford
16	H.-Q. 34, 72, 86 (H) 27 (H)	Jhansi Allahabad	27	15 H.-Q. 21, 24, 37 (H)	Mhow
			28	47 H.-Q. 3, 5 57 (H) 1	Meerut Bareilly

Allotment of Batteries to Field Brigades.

Batt.	Brig.	Batt.	Brig.	Batt.	Brig.	Batt.	Brig.	Batt.	Brig.	Batt.	Brig.	Batt.	Brig.
H	8th	1	28th	18	3rd	35	2nd	52	1st	69	6th	86	16th
P	21st	2	13th	19	9th	36	22nd	53	2nd	70	24th	87	2nd
Q		3	28th	20	"	37	27th	54	10th	71	26th	88	14th
R		4	4th	21	27th	38	14th	55	22nd	72	16th	89	23rd
S	15th	5	28th	22	24th	39	19th	56	24th	73	5th	90	"
T		6	12th	23	12th	40	26th	57	28th	74	6th	91	12th
U		7	4th	24	27th	41	20th	58	25th	75	3rd	92	17th
V	8th	8	13th	25	25th	42	2nd	59	18th	76	9th	93	18th
W		9	7th	26	17th	43	7th	60	23rd	77	6th	94	"
X		10	17th	27	16th	44	13th	61	14th	78	11th	95	"
Y	21st	11	1st	28	9th	45	20th	62	3rd	79	6th	96	19th
Z		12	25th	29	19th	46	10th	63	5th	80	1st	97	"
		13	17th	30	10th	47	27th	64	"	81	5th	98	1st
		14	4th	31	25th	48	26th	65	3rd	82	13th	99	20th
		15	26th	32	22nd	49	12th	66	4th	83	11th	100	23rd
		16	7th	33	"	50	24th	67	20th	84	"		
		17	"	34	16th	51	10th	68	14th	85	"		

Light Brigades, Royal Artillery.

Brig.	H.-Q. and Batteries.	—	Brig.	H.Q. and Batteries.	—
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2nd	H.-Q., 5, 7, 9	Bulford			
3rd	H.-Q., 16, 18, 19	Norwich	5th	H.-Q., 1, 13, 14	Ewshott

Indian Mountain Brigades, Royal Artillery.

Brig.	H.-Q. and British Light Batteries.	—	Brig.	H.-Q. and British Light Batteries.	—
20th	H.Q. 4 (How.)	Quetta	23rd	H.-Q. 17 (How.)	Peshawar
21st	H.-Q. 12 (How.)	Kohat	24th	H.-Q. 2 (How.)	Nowshera
22nd	H.-Q. 3 (How.)	Kakul	25th	H.-Q. 11 (How.)	Razmak
		Abbottabad			Razmak
		Rawalpindi			Jutogh
					"

Medium Brigades, Royal Artillery.

Brig.	H.-Q. and Batteries.	—	Brig.	H.-Q. and Batteries.	—
1st	H.Q. 1, 3 (H) 5 (H) 22 (H)	Larkhill	5th	H.Q., 17 21 (H) 15 (H) 20 (H)	Ambala
2nd	H.Q., 7 (H), 4, 8 (H), 12 (H)		6th	H.Q., 19 (H) 24 (H) 18	Peshawar Ferozepore Fort Brockhurst
3rd	H.Q., 2, 10 (H) 11 (H) 6 (H)	Longmoor			Christchurch Fort Fareham
4th	H.Q., 9 13 (H) (HD) 14 (H) 16 (H)		7th	H.Q. 26 (H), 27 (H), 28 (H) 25	Clarence Bar- racks, Ports- mouth Fort Widley, Portsmouth
		Muttra			
		Agra			
		Delhi			
		Muttra			

Anti-Aircraft Brigade, Royal Artillery.

Brigade.	H.Q. and Btys.	—	Brigade.	H.Q. and Btys.	—
1st	H.Q. 1, 2, 3	Blackdown	2nd	H.Q. 4, 5, 6	Clarence Bks. Portsmouth
			Unbrig.	7 8	Singapore Bombay

Heavy Brigade, Royal Artillery.

Brigade.	H.Q. and Batteries.	—
1st	H.Q. 3, 5, 16, 28	Plymouth.

Heavy Batteries, Royal Artillery.

Bat-tery.	—	Bat-tery.	—	Bat-tery.	—
1	(Cadre) Clarence Barracks, Portsmouth	11	Singapore	22	Singapore
2	(Cadre) Jamaica	12	Hong Kong	24	(Cadre) Plymouth
4	Gibraltar	13	Karachi	25	Mauritius
6	Malta	14	Bombay	26	Spike Island
8	(Cadre) Culver (I. of W.)	15	Ceylon	27	Gibraltar
9	Aden	17	Lough Swilly	29	Gibraltar
10	Malta	18	Ceylon	30	(Cadre) Sheerness
		19	Spike Island	31	Hong Kong
		20	Hong Kong	32	Bere Island
		21	Shoeburyness	33	Fort Carlisle

1st Survey Co., Royal Artillery Larkhill

C.—Royal Engineers

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Dépôt Battalion, R.E., Chatham	26th (Field) Co., Aldershot
R.E. Mounted Dépôt, Aldershot	30th (Fortress) Co., Plymouth
Railway Training Centre, Longmoor	31st (Fortress) Co., Ceylon
Rhine Railway Co., Rhine (to be dis- banded)	33rd (Fortress) Co., Queenstown Har- bour
1st Field Squadron, Aldershot	35th (Fortress) Co., Pembroke
1st (Fortress) Co., Gibraltar	36th (Fortress) Co., Sierra Leone
2nd (Field) Co., Egypt	38th (Field) Co., Aldershot
3rd (Fortress) Co., Dover	39th (Fortress) Co., Sheerness
4th (Fortress) Co., Gosport	40th (Fortress) Co., Hong Kong
5th (Field) Co., Aldershot	41st (Fortress) Co., Singapore
6th (Field) Park Co., Aldershot	42nd (Field) Co., Egypt
7th (Field) Co., Rhine (for Colchester)	43rd (Fortress) Co., Mauritius
8th (Railway) Co., Longmoor	44th (Fortress) Co., Jamaica
9th (Field) Co., Shorncliffe	45th (Fortress) Co., Portsmouth
10th (Railway) Co., Longmoor	49th (Fortress) Co., North Queens- [ferry]
11th (Field) Co., Aldershot	54th (Field) Co., Bulford
12th (Field) Co., Aldershot	55th (Field) Co., Catterick
13th (Survey) Co., York	56th (Field) Co., Bulford
14th (Survey) Co., Edinburgh	58th (Porton) Co., Porton
15th (Field Park) Co., Aldershot	59th (Field) Co., Catterick
16th (Fortress) Co., Tynemouth Castle, North Shields	Experimental Bridging Estabtd., Christ- church
17th (Field) Co., Bulford	1st A.A. Searchlight Bn. R.E., Black- down
18th (Field Park) Co., Shorncliffe	Survey Bn. R.E., Southampton

D.—Royal Corps of Signals

Stations of the Head Quarters of Units.

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Signals Experimental Estabtn., Woolwich	No. 2 Wireless Co., Sarafand
Depôt Bn., Catterick	No. 3 Co. Egypt Signals, Egypt
Training Bn., Catterick	No. 4 Wireless Co., Chatham
"A" Corps Signals, Ewshott	No. 1 Art. Signal Section, Aldershot
Cavalry Divisional Signals	No. 2 Art. Signal Section, Larkhill
H.Q. "B" Troop, "C" Troop, Tidworth	No. 3 Art. Signal Section, Newcastle-on-Tyne
"D" Troop, Aldershot	No. 4 Art. Signal Section, Edinburgh
"E" Troop, Tidworth	No. 5 Art. Signal Section, Bulford
1st Divisional Signals, Aldershot	No. 6 Art. Signal Section, Aldershot
2nd Divisional Signals, Aldershot	No. 7 Art. Signal Section, Bulford
3rd Divisional Signals, Bulford	No. 1 Tank Signal Section, Aldershot
4th Divisional Signals, Colchester	No. 2 Tank Signal Section, Tidworth
Air Defence Brigade Signals, Blackdown	No. 3 Tank Signal Section
Aldershot Command Signal Co., Aldershot	No. 4 Tank Signal Section
Eastern Command Signal Co., London	Signal Section, Aden.
Northern Command Signal Co., York	Signal Section, Gibraltar
Scottish Command Signal Co., Edinburgh	Signal Section, Malta
Southern Command Signal Co., Salisbury	Signal Section, Malaya
Western Command Signal Co., Chester	Signal Section, Hong Kong
Northern Ireland Signal Co., Belfast	Signal Section, North China
South Irish Coast Defence Signal Section, Spike Island	Signal Section, Mauritius
	Signal Section, Jamaica
	Signal Section, Ceylon
	"L" Co., Jubbulpore

E.—Infantry Regiments

Regiment.	Location.	Commanding Officer.	Remarks.
1st Grenadier Guards	Tower of London	Lt.-Col. E. J. L. Pike, M.C., <i>p.s.c.</i>	For Wellington Bar'ks.
2nd ditto	Chelsea Barracks	Lt.-Col. G. E. C. Rasch, D.S.O.	For Aldershot.
3rd ditto	Aldershot	Lt.-Col. A. F. A. N. Thorne, C.M.G., D.S.O., <i>p.s.c.</i>	For Warley.
1st Coldstream Guards	Aldershot	Lt.-Col. A. G. C. Dawnay, D.S.O., C.B.E., <i>p.s.c.</i>	For Chelsea Barracks.
2nd ditto	Windsor	Lt.-Col. P. R. B. Lawrence, M.C.	For Aldershot.
3rd ditto	Wellington Barracks	Lt.-Col. J. C. Brand, D.S.O., M.C.	For Chelsea Barracks.
1st Scots Guards	Wellington Barracks	Lt.-Col. H. E. C. Ross, D.S.O.	For Windsor.
2nd ditto	Chelsea Barracks	Lt.-Col. E. C. T. Warner, D.S.O., M.C.	For Wellington Bar'ks.
1st Irish Guards	Aldershot	Lt.-Col. R. V. Pollok, C.B.E., D.S.O., <i>p.s.c.</i>	For Tower of London.
1st Welsh Guards	Egypt	Lt.-Col. R. T. K. Auld	
1st Royal Scots (The Royal Regt.)	Glasgow	Lt.-Col. N. H. S. Farquhar, D.S.O., O.B.E.	For Aldershot.
2nd ditto	Tientsin	Lt.-Col. F. C. Tanner, C.M.G., D.S.O., <i>p.s.c.</i>	

Infantry Regiments—*continued*

Regiment.	Location.	Commanding Officer.	Remarks.
1st The Queen's Royal Regiment (West Surrey)	Malta	Lt.-Col. H. C. Ponsonby, D.S.O., M.C.	
2nd ditto	Dover	Lt.-Col. H. N. A. Hunter, D.S.O.	
1st The Buffs (East Kent Regt.)	Bareilly	Lt.-Col. L. H. Smith	
2nd ditto	Aldershot	Lt.-Col. J. Crookenden, D.S.O.	
1st The King's Own Royal Regiment (Lancaster)	Aldershot	Lt.-Col. H. A. Kaulbach, O.B.E.	
2nd ditto	Rawalpindi	Bt.-Col. W. H. Gribbon, C.M.G., C.B.E., <i>p.s.c.</i>	For Sudan.
1st Northumberland Fusiliers	York	Lt.-Col. W. N. Herbert, C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Lahore	Lt.-Col. S. H. Kershaw, D.S.O., <i>p.s.c.</i>	
1st Royal Warwickshire Regiment	Woking	Lt.-Col. C. T. Tomes, D.S.O., M.C., <i>p.s.c.</i>	
2nd ditto	Bombay and Deolali	Lt.-Col. J. A. M. Bannerman, D.S.O., <i>p.s.c.</i>	For Sudan.
1st Royal Fusiliers (City of London Regiment)	Ambala (for Kamptee)		
2nd ditto	Rhine	Lt.-Col. R. Howlett, D.S.O., M.C.	For Colchester.
1st The King's Regiment (Liverpool)	Egypt and Cyprus	Lt.-Col. D. M. King, D.S.O., M.C., <i>p.s.c.</i>	
2nd ditto	Lichfield	Bt.-Col. L. R. Schuster, D.S.O., <i>p.s.c.</i>	
1st Norfolk Regiment	Shanghai	Lt.-Col. W. J. O'B. Daunt	For Sialkot.
2nd ditto	Aldershot	Lt.-Col. R. H. Brudenell-Bruce, D.S.O.	
1st Lincolnshire Regiment	Dover (for Gibraltar)	Lt.-Col. F. S. Thackeray, D.S.O., M.C.	
2nd ditto	Soudan (for Dover)	Lt.-Col. A. B. Johnson, D.S.O.	
1st Devonshire Regiment	Malta (for Quetta)	Lt.-Col. W. E. Scafe, C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Devonport	Lt.-Col. H. Street, D.S.O.	
1st Suffolk Regiment	Colchester (for Blackdown)	Lt.-Col. D. V. M. Balders, O.B.E., M.C.	
2nd ditto	Trimulgherry	Lt.-Col. W. M. Campbell, D.S.O., M.C.	
1st Somerset Light Infantry (Prince Albert's)	Hong Kong	Lt.-Col. C. H. Little, D.S.O.	
2nd ditto	Tidworth	Lt.-Col. V. H. B. Majendie, D.S.O., <i>p.s.c.</i>	
1st West Yorkshire Regiment (The Prince of Wales's Own)	Holywood (for West Indies)	Lt.-Col. A. M. Boyall, D.S.O.	
2nd ditto	Khartoum (for Strensall)	Lt.-Col. W. A. Davenport, D.S.O., M.C.	

Infantry Regiments—*continued*

Regiment.	Location.	Commanding Officer.	Remarks.
1st East Yorkshire Regiment.	Lucknow	Lt.-Col. D. F. Anderson, C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Aldershot	Lt.-Col. J. B. O. Trimble, D.S.O., O.B.E., M.C.	
1st Bedfordshire and Hertfordshire Regt.	Mhow	Lt.-Col. J. P. Tredennick, D.S.O., O.B.E., <i>p.s.c.</i>	
2nd ditto	Dover (for Bordon)	Lt.-Col. E. W. Brighten, C.M.G., D.S.O., T.D.	
1st Leicestershire Regiment	Kamptee and Nagpur (for Ambala)	Lt.-Col. C. S. Davies, C.M.G., D.S.O.	
2nd ditto	Rhine (for Catterick)	Lt.-Col. P. H. Creagh, D.S.O.	
1st The Green Howards (Alexandra, Princess of Wales's Own Yorkshire Regiment)	Strensall (for Aldershot)	Lt.-Col. H. W. McCall, C.M.G., D.S.O.	
2nd ditto	Egypt (for Shanghai)	Lt.-Col. C. H. de St. P. Bunbury	
1st Lancashire Fusiliers	Gibraltar (for Catterick)	Lt.-Col. R. Luker, C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Wellington, Calicut and Malappuram	Lt.-Col. G. E. Tallents, D.S.O.	
1st Royal Scots Fusiliers	Bordon	Lt.-Col. H. C. Maitland Makgill Crich-ton, C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Ferozepore	Bt.-Col. R. G. Crauford, D.S.O., <i>p.s.c.</i>	
1st Cheshire Regiment	Poona and Kirkee	Lt.-Col. E. C. Maxwell, O.B.E., M.C.	
2nd ditto	Tidworth (for Aldershot)	Lt.-Col. A. W. Stericker, D.S.O., <i>p.s.c.</i>	
1st Royal Welch Fusiliers	Quetta	Lt.-Col. H. V. V. Kyrke, D.S.O.	
2nd ditto	Rhine (for Tidworth)	Lt.-Col. P. R. Butler, D.S.O.	
1st South Wales Borderers	Egypt	Lt.-Col. R. F. Gross, D.S.O., <i>p.s.c.</i>	
2nd ditto	Portsmouth	Lt.-Col. T. C. Greenway, D.S.O.	
1st King's Own Scottish Borderers	Bordon	Lt.-Col. H. J. N. Davis, C.M.G., D.S.O.	
2nd ditto	Hong Kong (for Poona)	Lt.-Col. L. J. Comyn, C.M.G., D.S.O., <i>p.s.c.</i>	
1st Cameronians (Scottish Rifles)	Catterick (for Egypt)	Lt.-Col. H. C. H. Smith, D.S.O.	
2nd ditto	Nowshera (for Glasgow)	Lt.-Col. A. R. Mac-Allen	
1st Royal Inniskilling Fusiliers	Belfast (for Holywood)	Lt.-Col. R. C. Smythe, C.M.G., D.S.O.	
1st Gloucestershire Regiment	Egypt	Lt.-Col. A. F. Chapman	
2nd ditto	Gravesend	Lt.-Col. R. L. Beasley, D.S.O.	
1st Worcestershire Regiment	Allahabad (for China)	Lt.-Col. D. F. O. Faviell, D.S.O.	

Infantry Regiments—*continued*

Regiment.	Location.	Commanding Officer.	Remarks.
2nd Worcestershire Regiment	Plymouth	Lt.-Col. F. P. Dunlop, C.B.E., D.S.O., <i>p.s.c.</i>	
1st East Lancashire Regiment	Quetta (for Bombay)	Lt.-Col. W. J. Cranstons, D.S.O.	
2nd ditto	Catterick	Lt.-Col. W. G. Holmes, D.S.O.	
1st East Surrey Regiment	Rawalpindi	Lt.-Col. M. J. A. Jourdier, D.S.O., <i>p.s.c.</i>	
2nd ditto	Catterick	Lt.-Col. M. J. Minogue, D.S.O., M.C.	
1st The Duke of Cornwall's Light Infantry	Lebong and Barrackpore	Lt.-Col. A. P. Dene, C.M.G., D.S.O.	
2nd ditto	Aldershot	Lt.-Col. H. T. Dobbin, C.B.E., D.S.O.	
1st The Duke of Wellington's Regiment (West Riding)	Devonport	Lt.-Col. F. H. B. Wellesley.	
2nd ditto	Ahmednagar	Lt.-Col. J. C. Burnett, D.S.O.	
1st Border Regiment	Bordon	Lt.-Col. E. Roach-Kelly, D.S.O.	
2nd ditto	Tientsin (for Rawalpindi)	Lt.-Col. A. J. Ellis, D.S.O., <i>p.s.c.</i>	
1st Royal Sussex Regiment	Bordon (for Dover)	Lt.-Col. C. Harman, D.S.O.	
2nd ditto	Rawalpindi (for Landi Kotal)	Lt.-Col. J. S. Woodruffe, D.S.O., O.B.E.	
1st Hampshire Regiment	Multan	Lt.-Col. H. G. F. Frisby	
2nd ditto	Rhine (for Catterick)	Lt.-Col. C. R. U. Savile, D.S.O., O.B.E., <i>p.s.c.</i>	
1st South Staffordshire Regiment	Lichfield	Lt.-Col. C. W. Frizell, D.S.O., M.C., <i>p.s.c.</i>	
2nd ditto	Malta	Lt.-Col. W. W. Roche	
1st Dorsetshire Regt.	Meerut	Lt.-Col. A. L. Ramsome, D.S.O., M.C.	
2nd ditto	Rhine (for Portland)	Lt.-Col. W. Clemson, D.S.O.	
1st The Prince of Wales's Volunteers (South Lancashire)	Rhine (for Catterick)	Lt.-Col. F. H. Charlton, D.S.O.	
2nd ditto	Jubbulpore	Lt.-Col. G. Shaw, M.C.	
1st Welch Regiment	Gosport	Lt.-Col. G. Fleming, D.S.O.	
2nd ditto	Singapore	Lt.-Col. W. M. Hore	
1st The Black Watch (Royal Highlanders)	Chakrata	Lt.-Col. R. A. Bulloch, D.S.O.	
2nd ditto	Fort George (for Colchester)	Lt.-Col. L. P. Evans, V.C., C.M.G., D.S.O., <i>p.s.c.</i>	
1st Oxfordshire and Buckinghamshire Light Infantry	Parkhurst	Lt.-Col. M. F. Day, M.C., <i>p.s.c.</i>	
2nd Oxfordshire and Buckinghamshire Light Infantry	Calcutta (for Maymyo)	Lt.-Col. A. E. Sander-son, D.S.O.	

Infantry Regiments—*continued*

Regiment.	Location.	Commanding Officer.	Remarks.
1st Essex Regiment	Colchester (for Pembroke Dock)	Lt.-Col. A. E. M. Sinclair Thomson, D.S.O.	
2nd ditto	Landi Kotal (for Nowshera)	Lt.-Col. H. R. Bowen, D.S.O.	
1st The Sherwood Foresters (Not- tinghamshire and Derbyshire Regi- ment)	Shorncliffe	Lt.-Col. R. T. Foster, D.S.O.	
2nd ditto	Karachi and Hyde- rabad	Lt.-Col. R. S. Hart, D.S.O.	
1st The Loyal Regiment (North Lancashire)	Secunderabad (for Calcutta)	Lt.-Col. C. V. M. Bell, O.B.E.	
2nd ditto	Aldershot	Lt.-Col. W. Green, D.S.O.	
1st Northamptonshire Regiment	Malta	Lt.-Col. S. H. J. Thun- der, C.M.G., D.S.O., M.C.	
2nd ditto	Colchester	Lt.-Col. W. D. Barber	
1st The Royal Berk- shire Regiment (Princess Charlotte)	Fyzabad	Lt.-Col. A. G. M. Sharpe, D.S.O., O.B.E.	
2nd ditto [of Wales's)	Aldershot	Lt.-Col. J. P. B. Robin- son, C.M.G., D.S.O., <i>p.s.c.</i>	
1st Queen's Own Royal West Kent	Bangalore	Lt.-Col. A. K. Grant, D.S.O.	
2nd ditto [Regiment	Guernsey	Lt.-Col. E. H. Norman, D.S.O., O.B.E.	
1st King's Own York- shire Light Infantry	Blackdown	Lt.-Col. Hon. E. P. J. Corbally Stourton, D.S.O., <i>p.s.c.</i>	
2nd ditto	Peshawar	Lt.-Col. E. A. Beck, D.S.O., <i>p.s.c.</i>	
1st King's Shropshire Light Infantry	Razmak (for Rawalpindi)	Lt.-Col. B. E. Murray, D.S.O.	
2nd ditto	Aldershot	Lt.-Col. R. E. Holmes à Court, D.S.O.	
1st Middlesex Regi- ment (Duke of Cambridge's Own)	Catterick	Lt.-Col. V. L. N. Pear- son, D.S.O.	
2nd ditto	Madras and St. Thomas' Mount	H. E. Stanley-Murray, M.C.	
1st King's Royal Rifles Corps	Lucknow	Lt.-Col. F. L. Pardoe, D.S.O.	
2nd ditto	Tidworth	Lt.-Col. T. G. Dalby, D.S.O.	
1st Wiltshire Regi- ment (Duke of Edinburgh's)	Plymouth (for Egypt)	Lt.-Col. P. S. Rowan, D.S.O., <i>p.s.c.</i>	
2nd ditto	Shanghai (for Plymouth)	Lt.-Col. C. A. Barker, O.B.E.	
1st Manchester Regiment	Shorncliffe	Lt.-Col. B. C. Frey- berg, V.C., C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Maymyo (for Secunderabad)	Lt.-Col. J. R. Heelis, M.C.	

Infantry Regiments—*continued.*

Regiment.	Location.	Commanding Officer.	Remarks.
1st North Staffordshire Regiment (The Prince of Wales's)	Nasirabad and Ahmedabad	Lt.-Col. H. H. Stoney, D.S.O.	
2nd ditto	Blackdown (for Gibraltar)	Lt.-Col. D. G. Johnson, V.C., D.S.O., M.C.	
1st York and Lancaster Regiment	Londonderry	Lt.-Col. A. B. Beauman, D.S.O., <i>p.s.c.</i>	
2nd ditto	Dinapore	Lt.-Col. M. G. H. Barker, D.S.O., <i>p.s.c.</i>	
1st Durham Light Infantry	Egypt (for Caterick)	Lt.-Col. C. L. Matthews, D.S.O.	
2nd ditto	Sialkot (for Razmak)	Lt.-Col. R. V. Turner, D.S.O.	
1st Highland Light Infantry (City of Glasgow Regt.)	Aldershot (for Malta)	Lt.-Col. R. C. Greenwood	
2nd ditto	Cawnpore and Benares	Lt.-Col. C. H. M. McCallum	
1st Seaforth Highlanders (Ross-shire), Buffs (The Duke of Albany's)	Dover	Lt.-Col. V. M. Fortune, D.S.O., <i>p.s.c.</i>	
2nd ditto	Jhansi	Lt.-Col. Sir T. G. Cope, Bt., C.M.G., D.S.O., <i>p.s.c.</i>	
1st Gordon Highldrs.	Delhi	Lt.-Col. I. Picton-Warlow	
2nd ditto	Ballykinlar	Lt.-Col. J. Forbes-Robertson, V.C., D.S.O., M.C.	
1st The Queen's Own Cameron Highlanders	Mingaladon	Lt.-Col. R. Campbell D.S.O.	
2nd ditto	Edinburgh	Lt.-Col. J. S. Drew, D.S.O., M.C., <i>p.s.c.</i>	
1st The Royal Ulster Rifles	Aldershot (for Belfast)	Lt.-Col. D. T. C. K. Bernard, C.M.G., D.S.O., <i>p.s.c.</i>	
2nd ditto	Poona (for Allahabad)	Lt.-Col. H. P. Currey, <i>p.s.c.</i>	
Royal Irish Fusiliers (Princess Victoria's)	Agra	Lt.-Col. A. W. D. McCarthy-O'Leary, D.S.O., M.C.	
1st Argyll and Sutherland Highlanders (Princess Louise's)	Shorncliffe	Lt.-Col. A. W. R. Sprot, D.S.O.	
2nd ditto	Jamaica and Bermuda	Lt.-Col. R. G. MacLaine, M.C.	
1st Rifle Brigade (Prince Consort's Own)	Jullundur	Lt.-Col. H. M. Wilson, D.S.O., <i>p.s.c.</i>	
2nd ditto	Colchester	Lt.-Col. F. H. Burnett-Nugent, D.S.O., O.B.E.	

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Headquarters Royal Tank Corps Centre	..	Wool.
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2nd Battalion	..	Farnborough.
Lt.-Col. J. M. Hulton, C.B.E., D.S.O.		
3rd Battalion (less 1 Section)	..	Lydd.
Lieut.-Col. H. D. Carlton, D.S.O.		
4th Battalion	..	Catterick.
Lieut.-Col. M. C. Festing, D.S.O., <i>p.s.c.</i>		
5th Battalion	..	Perham Down, Salisbury Plain.
Lieut.-Col. C. A. Bolton, C.B.E., <i>p.s.c.</i>		
1 Section, 3rd Battalion	..	Rhine (for Lydd).
Central Schools	..	Wool.
Lt.-Col. E. J. Carter.		
1st Armoured Car Company	..	Peshawar.
2nd	..	Razmak and Razine (for Cawnpore).
3rd	..	Cairo.
5th	..	Egypt.
6th	..	Bangalore.
7th	..	Lahore.
8th	..	Kirkee (for Wazari-stan).
9th	..	Cawnpore & Calcutta (for Kirkee).
10th	..	Quetta.
11th	..	Delhi.

II. THE ARMY IN INDIA

[Corrected up to the 1st of August, 1929.]

Army Headquarters

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Commander-in-Chief. Field-Marshal Sir William R. Birdwood, Bart.,
G.C.B., G.C.M.G., K.C.S.I., C.I.E., D.S.O.,
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- Engineer-in-Chief.* Major-General A. G. Stevenson, C.B., C.M.G.,
D.S.O., B.S.

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K.C.S.I., D.S.O., I.A., *p.s.c.*
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(PESHAWAR)

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(Risalpur)

- Commander.* Colonel (Temp. Brigadier) J. Vander Byl, D.S.O.,
B.S.

LANDIKOTAL BRIGADE

(Landikotal)

- Commander.* Colonel (Temp. Brigadier) C. A. Milward, C.I.E.,
C.B.E., D.S.O., A.D.C., I.A., *p.s.c.*

PESHAWAR BRIGADE

(Peshawar)

- Commander.* Colonel (Temp. Brigadier) C. F. Watson, C.M.G.,
D.S.O., B.S., *p.s.c.*

THE ARMY QUARTERLY

Peshawar District—continued

HEADQUARTERS, NOWSHERA BRIGADE

(Nowshera)

Commander. Colonel (Temp. Brigadier) C. M. Wagstaff, C.M.G.,
C.I.E., D.S.O., A.D.C., B.S., *p.s.c.*

Kohat District

(Kohat)

Commander. Major-General E. A. Fagan, C.B., C.S.I., C.M.G.,
D.S.O., I.A.

KOHAT BRIGADE

(Kohat)

Commander. Colonel (Temp. Brigadier) C. Kirkpatrick, C.B.,
C.B.E., A.D.C., I.A., *p.s.c.*

Rawalpindi District

(Rawalpindi)

Commander. Major-General C. N. Macmullen, C.B., C.M.G.,
C.I.E., D.S.O., I.A., *p.s.c.*

1ST (ABBOTTABAD) INFANTRY BRIGADE

(Abbottabad)

Commander. Col. (Temp. Brigadier) W. M. Fordham, C.B.,
C.B.E., I.A., *p.s.c.*

2ND (RAWALPINDI) INFANTRY BRIGADE

(Rawalpindi)

Commander. Colonel (Temp. Brigadier) E. B. Mathew-Lannowe,
C.M.G., D.S.O., B.S., *p.s.c.*

3RD (JHELM) INFANTRY BRIGADE

(Jhelum)

Commander. Colonel (Temp. Brigadier) R. Gardiner, C.B.,
D.S.O., I.A., *p.s.c.*

Lahore District

(LAHORE)

Commander. Major-General Sir W. S. Leslie, K.B.E., C.B.,
C.M.G., D.S.O., I.A., *p.s.c.*

2ND (SIALKOT) CAVALRY BRIGADE

(Sialkot)

Commander. Colonel (Temp. Brigadier) C. R. Terrott, D.S.O.,
B.S.

Ferozepore Brigade Area

(Ferozepore)

Commander. Col. (Temp. Brigadier) I. U. Battye, D.S.O., I.A.

JULLUNDUR BRIGADE AREA

(Jullundur)

Commander. Major-General W. L. O. Twiss, C.B.E., M.C.,
I.A., *p.s.c.*

*Lahore Brigade Area**(Lahore)*

Commander. Colonel (Temp. Brigadier) W. A. Fetherstonhaugh,
C.B., C.B.E., D.S.O., I.A., *p.s.c.*

AMBALA BRIGADE AREA

(Ambala)

Commander. Colonel (Temp. Brigadier) W. E. Wilson-Johnston,
C.B., C.I.E., C.B.E., D.S.O., I.A., *p.s.c.*

MULTAN BRIGADE

(Multan)

Commander. Colonel (Temp. Brigadier) F. E. W. Venning,
C.B.E., D.S.O., I.A., *p.s.c.*

*Waziristan District**(RAZMAK)*

Commander. Major-General K. Wigram, C.B., C.S.I., C.B.E.
D.S.O., I.A., *p.s.c.*

RAZMAK BRIGADE

(Razmak)

Commander. Colonel (Temp. Brigadier) S. B. Pope, D.S.O.,
I.A., *p.s.c.*

BANNU BRIGADE

(Bannu)

Commander. Colonel (Temp. Brigadier) P. H. Keen, C.B., I.A.

MANZAI BRIGADE

(Manzai)

Commander. Colonel (Temp. Brigadier) R. C. Wilson, D.S.O.,
M.C., I.A., *p.s.c.*

*Western Command**(QUETTA)*

G.O.C.-in-Chief. General Sir C. H. Harington, G.B.E., K.C.B.,
D.S.O., D.C.L., B.S. *p.s.c.*

Brigadier, General Staff Colonel (Temp. Brigadier) J. G. Dill, C.B.,
C.M.G., D.S.O., B.S., *p.s.c.*

D.A. and Q.M.G. Colonel (Temp. Brigadier) N. C. Bannatyne, I.A.,
p.s.c.

ZHOB INDEPENDENT BRIGADE AREA

(Loralai)

Commander. Colonel (Temp. Brigadier) H. C. Duncan, D.S.O.,
O.B.E., I.A., *p.s.c.*

Baluchistan District

(QUETTA)

Commander. Major-General J. W. O'Dowda, C.B., G.S.I.,
C.M.G., B.S., *p.s.c.*

4TH (QUETTA) INFANTRY BRIGADE

(Quetta)

Commander. Colonel (Temp. Brigadier) E. C. Gepp, D.S.O.,
B.S., *p.s.c.*

5TH (QUETTA) INFANTRY BRIGADE

(Quetta)

Commander. Colonel (Temp. Brigadier) W. Dent, C.B.E.,
D.S.O., I.A., *p.s.c.*

Sind (Independent) Brigade Area

(KARACHI)

Commander. Major-General C. J. B. Hay, C.B., C.M.G.,
C.B.E., D.S.O., I.A., *p.s.c.*

Eastern Command

(Naini Tal)

G.O.C.-in-Chief. General Sir J. S. M. Shea, G.C.B., K.C.M.G.,
D.S.O., I.A., *p.s.c.*

Brigadier, General Staff. Colonel (Temp. Brigadier) L. F. Renny, C.M.G.,
D.S.O., B.S., *p.s.c.*

D.A. and Q.M.G. Colonel (Temp. Brigadier) W. K. Venning,
C.M.G., C.B.E., M.C., B.S., *p.s.c.*

Meerut District

(Meerut)

Commander. Major-General Sir W. E. Ironside, K.C.B., C.M.G.,
D.S.O., B.S., *p.s.c.*

3RD (MEERUT) CAVALRY BRIGADE

(Meerut)

Commander. Colonel (Temp. Brigadier) C. B. D. Strettell, I.A.

7TH (DEHRA DUN) INFANTRY BRIGADE

(Dehra Dun)

Commander. Colonel (Temp. Brigadier) T. C. Catty, C.M.G.,
D.S.O., I.A., *p.s.c.*

8TH (BAREILLY) INFANTRY BRIGADE

(Bareilly)

Commander. Colonel (Temp. Brigadier) R. E. Solly-Flood,
C.M.G., D.S.O., B.S., *p.s.c.*

Meerut District—continued

9TH JHANSI INFANTRY BRIGADE

(Jhansi)

Commander. Colonel (Temp. Brigadier) D. E. Robertson,
D.S.O., I.A.

*Lucknow District**(Lucknow)*

Commander. Major-General A. B. E. Cator, C.B., D.S.O., B.S.
ALLAHABAD BRIGADE AREA

(Allahabad)

Commander. Colonel (Temp. Brigadier) S. B. Orton, I.A., *p.s.c.*

6TH (LUCKNOW) INFANTRY BRIGADE

(Lucknow)

Commander. Colonel (Temp. Brigadier) J. Kennedy, C.M.G.,
D.S.O., B.S.

DELHI INDEPENDENT BRIGADE AREA

(Delhi)

Commander. Colonel (Temp. Brigadier) J. H. F. Lakin, C.S.I.,
I.A., *p.s.c.*

*Presidency and Assam District**(Calcutta)*

Commander. Major-General H. D. O. Ward, C.B., C.M.G., B.S.

*Southern Command**(Poona)*

G.O.C.-in-Chief. Lieut.-General Sir W. C. G. Heneker, K.C.B.,
K.C.M.G., D.S.O., B.S.

Brigadier, General Staff. Colonel (Temp. Brigadier) J. K. Dick-Cunyngham,
C.M.G., D.S.O., B.S., *p.s.c.*

D.A. and Q.M.G. Major-General E. F. Orton, C.B., I.A., *p.s.c.*

*Mhow District**(Mhow)*

Commander. Major-General H. E. Herdon, C.B., C.I.E., I.A., *p.s.c.*

POONA (INDEPENDENT) BRIGADE AREA

(Poona)

Commander. Colonel (Temp. Brigadier) G. H. Harrison,
D.S.O., B.S.

Deccan District

Commander. Major-General B. F. Burnett-Hitchcock, C.B.,
D.S.O., B.S., *p.s.c.*

4TH (SECUNDERABAD) CAVALRY BRIGADE

(*Secunderabad*)

Commander. Colonel (Temp. Brigadier) A. Campbell Ross,
D.S.O., I.A.

10TH (JUBBULPORE) INFANTRY BRIGADE

(*Jubbulpore*)

Commander. (*Vacant.*)

11TH (AHMEDNAGAR) INFANTRY BRIGADE

(*Ahmednagar*)

Commander. Colonel (Temp. Brigadier) B. R. Moberly, C.B.,
D.S.O., I.A., *p.s.c.*

12TH (SECUNDERABAD) INFANTRY BRIGADE

(*Secunderabad*)

Commander. Colonel (Temp. Brigadier) H. R. Headlam, C.M.G.,
D.S.O., B.S., *p.s.c.*

Bombay District

(*Bombay*)

Commander. Major-General C. A. Weir, C.B., C.M.G., D.S.O.,
B.S.

Madras District

(*Bangalore*)

Commander. Major-General A. L. Tarver, C.B., C.I.E.,
D.S.O., I.A., *p.s.c.*

SOUTHERN BRIGADE AREA

(*Fort St. George, Madras*)

Commander. Colonel (Temp. Brigadier) R. B. Worgan, C.S.I.,
C.V.O., D.S.O., I.A.

Burma Independent District

(*Maymyo*)

Commander. Major-General F. E. Coningham, C.B., C.S.I.,
C.M.G., D.S.O., I.A.

RANGOON BRIGADE AREA

(*Rangoon*)

Commander. Colonel (Temp. Brigadier) H. R. Sandilands,
C.M.G., D.S.O.

III. THE ROYAL AIR FORCE

1.—Air Council

<i>President of the Air Council.</i>	Brigadier-General the Rt. Hon. Lord Thomson, P.C., C.B.E., D.S.O., <i>p.s.c.</i> , Secretary of State for Air.
<i>Vice-President of the Air Council.</i>	F. Montague, Esq., M.P., Under-Secretary of State for Air.
<i>Members.</i>	Marshal of the Royal Air Force Sir H. M. Trenchard, Bt., G.C.B., D.S.O., D.C.L., LL.D., Chief of the Air Staff; Air Chief-Marshal Sir John M. Salmond, K.C.B., C.M.G., C.V.O., D.S.O., A.D.C., Air Member for Personnel; Air Marshal Sir J. F. A. Higgins, K.C.B., K.B.E., D.S.O., A.F.C., Air Member for Supply and Research; Sir W. F. Nicholson, K.C.B., Secretary of the Air Ministry.

2.—Air Ministry

<i>Secretary of State for Air.</i>	Brigadier-General the Rt. Hon. Lord Thomson, P.C., C.B.E., D.S.O., <i>p.s.c.</i>
<i>Under-Secretary of State for Air.</i>	F. Montague, Esq., M.P.
<i>Secretary of the Air Ministry.</i>	Sir W. F. Nicholson, K.C.B.

Directorate of Civil Aviation

<i>Director of Civil Aviation.</i>	Air Vice-Marshal Sir W. S. Brancker, K.C.B., A.F.C.
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Department of the Secretary of the Air Ministry

<i>Secretary.</i>	Sir W. F. Nicholson, K.C.B.
<i>Deputy Secretary.</i>	Sir S. Dannreuther, Kt., C.B.
<i>Principal Assistant Secretaries.</i>	H. W. W. McAnally, Esq., C.B.; B. E. Holloway, Esq., C.B.; J. A. Webster, Esq., C.B., D.S.O.
<i>Director of Accounts.</i>	J. S. Ross, Esq., C.B.E.
<i>Director of Contracts.</i>	C. R. Brigstocke, Esq., C.B.
<i>Director of Meteorological Office.</i>	G. C. Simpson, Esq., C.B., C.B.E., LL.D., D.Sc., F.R.S.

Air Ministry—continued

Directorate of Lands (Joint Service for War Office and Air Ministry)

Controller of Lands. H. G. Goligher, Esq., C.B.E.

Department of the Chief of the Air Staff

Chief of the Air Staff. Marshal of the Royal Air Force Sir H. M. Trenchard, Bt., G.C.B., D.S.O., D.C.L., LL.D.

Director of Operations and Intelligence. Air Commodore C. L. N. Newall, C.B., C.M.G., C.B.E., A.M. (Deputy Chief of the Air Staff).

Director of Organization and Staff Duties. Air Commodore F. W. Bowhill, C.M.G., D.S.O.

Signals. Air Commodore A. D. Warrington-Morris, C.M.G., O.B.E.

Director of Works and Buildings. Brig.-General H. Biddulph, C.B., C.M.G., D.S.O.

Department of the Air Member for Personnel

Air Member for Personnel. Air Chief-Marshal Sir John M. Salmond, K.C.B., C.M.G., C.V.O., D.S.O., A.D.C.

Director of Personal Services. Air Commodore P. F. M. Fellowes, D.S.O.

Director of Training. Air Vice-Marshal H. C. T. Dowding, C.B., C.M.G., *p.s.c.*

Director of R.A.F. Medical Services. Air Vice-Marshal D. Munro, C.B., C.I.E., M.B., M.A., F.R.C.S.(E.), K.H.S.

Department of the Air Member for Supply and Research

Air Member for Supply and Research. Air Marshal Sir J. F. A. Higgins, K.C.B., K.B.E., D.S.O., A.F.C.

Director of Technical Development. Air Commodore F. V. Holt, C.M.G., D.S.O.

Director of Scientific Research. H. E. Wimperis, Esq., C.B.E., M.A., F.R.Ae.S., M.I.E.E.

Deputy Director of Airship Development. Squadron-Leader B. B. Colman, O.B.E.

Director of Equipment. Air Vice-Marshal R. H. Clark-Hall, C.M.G., D.S.O., *p.s.c.*

3.—R.A.F. Commands (United Kingdom)

(a) AIR DEFENCE OF GREAT BRITAIN

Headquarters : Hillingdon House, Uxbridge, Middlesex.

Air Officer Commanding-in-Chief. Air Marshal Sir Edward L. Ellington, K.C.B., C.M.G., C.B.E., *p.s.c.*

R.A.F. Commands (United Kingdom)—*continued*

Wessex Bombing Area

Headquarters : Andover.

Air Officer Commanding.

Air Vice-Marshal Sir J. M. Steel, K.B.E., C.B.,
C.M.G.

Station H.Q. ..	Andover.	No. 33 (Bomb.)	
No. 12 (Bomb.)		Sqdn.	Netheravon.
Sqdn.	Andover.	Station H.Q. ..	Upper Heyford.
*Staff College ..	Andover.	No. 10 (Bomb.)	
No. 100 (Bomb.)		Sqdn.	Upper Heyford.
Sqdn.	Bicester.	No. 99 (Bomb.)	
Station H.Q. ..	Bircham Newton.	Sqdn.	Upper Heyford.
No. 35 (Bomb.)		Station Flight ..	Upper Heyford.
Sqdn.	Bircham Newton.	Station H.Q. ..	Worthy Down.
No. 101 (Bomb.)		No. 7 (Bomb.)	
Sqdn.	Bircham Newton.	Sqdn.	Worthy Down.
No. 207 (Bomb.)		No. 58 (Bomb.)	
Sqdn.	Eastchurch.	Sqdn.	Worthy Down.
No. 9 (Bomb.)		*Oxford University	
Sqdn.	Manston.	Air Squadron ..	Oxford.

Fighting Area

Headquarters : Uxbridge.

Air Officer Commanding.

Air Vice-Marshal Francis R. Scarlett, C.B., D.S.O.

Night Flying Flight ..	Biggin Hill.	No. 41 (Fighter Sqdn.)	Northolt.
Station H.Q.	Duxford.	Station H.Q.	North Weald.
No. 19 (Fighter) Sqdn.	Duxford.	No. 29 (Fighter) Sqdn.	North Weald.
Station Flight	Duxford.	No. 56 (Fighter) Sqdn.	North Weald.
No. 25 (Fighter) Sqdn.	Hawkinge.	Station H.Q.	Tangmere.
No. 111 (Fighter)		No. 1 (Fighter) Sqdn.	Tangmere.
Sqdn.	Hornchurch.	No. 43 (Fighter) Sqdn.	Tangmere.
Station H.Q.	Kenley.	Station H.Q.	Upavon.
No. 23 (Fighter) Sqdn.	Kenley.	No. 3 (Fighter) Sqdn.	Upavon.
No. 32 (Fighter) Sqdn.	Kenley.	No. 17 (Fighter) Sqdn.	Upavon.
Station H.Q.	Northolt.	*Cambridge University	
†No. 24 (Commn.)		Air Squadron ..	Cambridge.
Sqdn.	Northolt.		

No. 1 Air Defence Group

Headquarters : Sloane Square, London, S.W.1.

Auxiliary Air Force Units.

No. 501 (Bomb.) Sqdn.	Filton.	No. 600 City of London	
No. 502 (Ulster) (Bomb.)		(Bomb.) Sqdn.	Hendon.
Sqdn.	Aldergrove.	No. 601 County of London	
No. 503 (County of Lincoln) (Bomb.) Sqdn.	Waddington.	(Bomb.) Sqdn.	Hendon.
No. 504 (County of Nottingham) (Bomb.) Sqdn.	Hucknall.	No. 602 City of Glasgow	
		(Bomb.) Sqdn.	Renfrew.
Superintendent, R.A.F.		No. 603 City of Edinburgh	
Reserve	Hendon.	(Bomb.) Sqdn.	Turnhouse.
		No. 605 County of Warwick	
		(Bomb.) Sqdn. ..	Castle Bromwich.

* For discipline and administration only.

† Directly under Air Ministry for operations.

R.A.F. Commands (United Kingdom)—*continued*

(b) INLAND AREA

Headquarters : Bentley Priory, Stanmore, Middlesex.

Air Officer Commanding. Air Vice-Marshal C. A. H. Longcroft, C.B.,
C.M.G., D.S.O., A.F.C.
Chief Staff Officer. Air Commodore A. M. Longmore, C.B., D.S.O.

Units Administered direct by Inland Area Headquarters.

Air Ministry Wireless Section	Air Ministry.	Home Communication Flight	Hendon.
*R.A.F. Central Band	Uxbridge.		

No. 21 Group

Headquarters : West Drayton.

†Reception Depôt ..	West Drayton	School of Store Ac- counting and Store Keeping	Kidbrooke.
†No. 1 Stores Depôt..	Kidbrooke.	§Medical Stores Depôt	Kidbrooke.
Port Detachment ..	South Dock, West India Dock, E.14.	†No. 2 Stores Depôt..	Altrincham.
†Record Office ..	Ruislip.	†No. 3 Stores Depôt..	Milton.
||R.A.F. M.T. Depôt	Shrewsbury.	†No. 4 Stores Depôt..	Ruislip.
||Home Aircraft Depôt	Henlow.	Detachment	Orfordness.
¶Aeroplane and Arma- ment Experimental Establishment ..	Martlesham.	R.A.F. Depôt	Uxbridge.
**No. 15 (Bomb.) Sqdn.	Martlesham.	(Including School of Physical Training.)	
**No. 22 (Bomb.) Sqdn.	Martlesham.	**R.A.F. Officers'	
		Hospital	Uxbridge.
		C. and M. Party ..	Ascot.

No. 22 Group

Headquarters : South Farnborough.

†School of Photography	South Farn- borough.	School of Balloon Train- ing	Larkhill.
†Experimental Section R.A.E.	South Farn- borough.	No. 13 (Army Coopera- tion) Sqdn. ..	Andover.
No. 4 (Army Coopera- tion) Sqdn. ..	Farnborough.	No. 2 (Army Coopera- tion) Sqdn. ..	Manston.
School of Army Co- operation	Old Sarum.	No. 26 (Army Coopera- tion) Sqdn. ..	Catterick.
No. 16 (Army Coop- eration) Sqdn. ..	Old Sarum.	Coast Defence Coopera- tion Flight ..	Eastchurch.

* Directly under Director of Personal Services, Air Ministry, for technical administration.

† Directly under Director of Training, Air Ministry, for technical administration.

‡ Controlled directly by the Air Ministry as laid down in A.M.W.O. 822/1921.

§ Directly under Director of Medical Services, Air Ministry, for technical administration.

|| Directly under Director of Equipment, Air Ministry, for technical administration.

¶ Administered as laid down in A.M.W.O. 33/1926.

** Under No. 21 Group for administration only.

R.A.F. Commands (United Kingdom)—continued**(b) Inland Area—continued****No. 23 Group***Headquarters* : " St. Vincents," Grantham.

No. 2 F.T.S.	Digby.	School of Technical Training (Men) . .	Manston.
No. 3 F.T.S.	Grantham.	Packing Dépôt	Sealand.
No. 5 F.T.S.	Sealand.	No. 1 F.T.S.	Netheravon.
Armament and Gun-		C.F.S.	Wittering.
nery School	Eastchurch.	Station H.Q.	Manston

(c) COASTAL AREA*Headquarters* : 33-34, Tavistock Place, W.C.1.*Air Officer Commanding.* Air Vice-Marshal C. L. Lambe, C.B., C.M.G.
D.S.O.**Units Administered Direct by Coastal Area Headquarters**

•Inspector of Recruiting	Gwydr House	R.A.F. Training Base . .	Leuchars.
(a) R.A.F. Recruiting Dépôt . .	Whitehall, S.W.1.	(a) Headquarters.	
†Marine Aircraft Experimental Establishment . .	Felixstowe.	(b) Accommodation for 3½ F.A.A. Flights.	
(a) Flying Boat Development Flight . .	Felixstowe.	Station H.Q.	Donibristle.
Station H.Q.	Cattewater.	(a) No. 36 (Torpedo Bomber) Squadron.	
No. 204 (Flying Boat) Squadron . .	"	(b) No. 401 Fleet Fighter) Flight.	
†Central Medical Establishment . .	3-4, Clement's Inn, W.C.2.	(c) No. 405 " "	
		(d) No. 406 " "	
		(e) No. 408 " "	
		R.A.F. units for H.M.S. <i>Furious</i> , <i>Argus</i> and <i>Vindictive</i>	

No. 10 Group*Headquarters* : Lee-on-Solent

R.A.F. Base	Calshot.	R.A.F. Base	Gosport.
(a) Headquarters.		(a) Headquarters.	
(b) No. 201 (Flying Boat) Squadron.		(b) Flying Section.	
(c) H.Q. Training Squadron		(c) Torpedo Development Section.	
(d) Navigation School.		(d) Marine Craft Section.	
(e) Seaplane Training Flight.		(e) R.A.F. Auxiliary " <i>Adastral</i> ."	
(d) Marine Training Section.		(f) Storage Unit.	
School of Naval Co-operation	Lee-on-Solent.	Accommodation for 6 F.A.A. Flights. R.A.F. Floating Dock	Portland.

(d) ROYAL AIR FORCE, CRANWELL*Headquarters* : Cranwell, Sleaford, Lincs.*Air Officer Commanding.* Air Vice-Marshal F. C. Halahan, C.M.G., C.B.E., D.S.O., M.V.O.

Units as follow :—

R.A.F. (Cadet) College.
Band.

R.A.F. Hospital.

• Directly under Air Ministry for technical administration.

† Under the D.M.S., Air Ministry, for technical administration (medical).

‡ Controlled directly by the Air Ministry as laid down in A.M.W.O. 822/1921.

R.A.F. Commands (United Kingdom)—continued**(c) ROYAL AIR FORCE, HALTON***Headquarters* : Halton House, Halton, Wendover, Bucks.*Air Officer Commanding.* Air Commodore I. M. Bonham-Carter, C.B., O.B.E.**Units as follow :—**

No. 1 School of Technical Training	
Apprentices	Halton.
School of Cookery	"
Princess Mary's R.A.F. Hospital	"
(a) Pathological Laboratory	"
(b) Medical Training Depôt	"

R.A.F. COMMANDS (OVERSEAS)**(a) R.A.F., Middle East***Headquarters* : Villa Victoria, Cairo.*Air Officer Commanding.* Air Vice-Marshal T. I. Webb-Bowen, C.B., C.M.G.*Chief Staff Officer.* Air Commodore A. G. Board, C.M.G., D.S.O.**Units Administered Direct by Middle East Command Headquarters**

R.A.F. Depôt, Middle East	Aboukir.
(a) Meteorological Station	"
(b) Port Detachment	Alexandria.
No. 4 Flying Training School	Abu Sueir.
Station Headquarters	Heliopolis.
(a) Meteorological Station	"
No. 208 (Army Cooperation) Squadron	"
No. 216 (Bombing) Squadron	"
No. 45 (Bombing) Squadron	Helwan.
Meteorological Station	Ismailia.
No. 47 (Bombing) Squadron	Khartoum

Royal Air Force, Transjordan and Palestine.Headquarters* : Amman.

No. 14 (Bombing) Squadron	Amman.
No. 2 Armoured Car Coy.	"
Meteorological Station	Ramleh.
Supply Depôt	Sarafand.
R.A.F. Hospital	"
W/T Station	Jerusalem.
W/T Station	Ma'an.

Also the undermentioned military unit :—

No. 2. Wireless Coy., R.C.S.	Sarafand.
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* Directly under the High Commissioner for operations.

R.A.F. COMMANDS (OVERSEAS)—continued**(b) Iraq Command***Headquarters : Baghdad City.*

Air Officer Commanding. Air Vice-Marshal Sir Robert Brooke-Popham,
K.C.B., C.M.G., D.S.O., A.F.C., *p.s.c.*
Chief Staff Officer. Air Commodore Charles S. Burnett, C.B.,
C.B.E., D.S.O.

R.A.F. Units as follow :—

Administered Direct by Command Headquarters.

Station Headquarters	Hinaidi.
Command Accounts Office	"
Aircraft Depot	"
General Hospital	"
Central Supply Depot	"
Supply Depot	Mosul.
No. 6 (Army Cooperation) Squadron	"
No. 30 (Bombing) Squadron	Hinaidi.
" 55 (Bombing) Squadron	"
" 70 (Bombing) Squadron	"
Armoured Car Wing H.Q.	"
No. 84 (Bombing) Squadron	Shaibah.
Supply Depot	Basrah.

Military Forces in Iraq.

Iraq Signal Section. No. 2 Wireless Coy., R.C.S. (No. 2
40th Combined Field Ambulance. Section).

(c) R.A.F. India*Headquarters : New Delhi.*

Air Officer Commanding. Air Vice-Marshal Sir W. G. H. Salmond,
K.C.B., K.C.M.G., D.S.O., *p.s.c.*
Air Staff Duties. Group Captain R. P. Mills, M.C., A.F.C.

No. 1 (Indian Group).

Headquarters	Peshawar.
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Units as follow :—

<i>Headquarters, No. 1 Indian Wing</i> ..	Kohat.
No. 60 (Bombing) Squadron ..	Kohat.
No. 27 (Bombing) Squadron ..	"
<i>Headquarters, No. 2 Indian Wing</i> ..	Risalpur.
No. 11 (Bombing) Squadron ..	"
" 39 (Bombing) Squadron ..	"
No. 20 (Army Cooperation) Squadron	Peshawar.

R.A.F. COMMANDS (OVERSEAS)—continued**(c) R.A.F. India—continued**

<i>Headquarters, No. 3 Indian Wing</i>	..	Quetta.
No. 5 (Army Cooperation)		
Squadron .. .. .	..	..
No. 31 (Army Cooperation)		
Squadron .. .. .	..	..
Units administered direct by Command Headquarters :—		
Aircraft Depôt .. .. .	..	Karachi.
„ Park .. .. .	..	Lahore.
No. 28 (Army Cooperation) Squadron	..	Ambala.

(d) R.A.F. Mediterranean

Headquarters : Valletta, Malta.

This Command comprises all units cooperating with the Navy in the Mediterranean Sea area.

Air Officer Commanding. Air Commodore James L. Forbes, O.B.E.

Units as follow :—

R.A.F. Base Calafrana, Malta.

R.A.F. Units for H.M.S. *Eagle* and *Courageous*.

(e) Aden Command

Air Officer Commanding. Group Captain W. G. S. Mitchell, C.B.E.,
D.S.O., M.C., A.F.C.

No. 8 (Bombing) Squadron	..	..	..	Khormakshar.
Armoured Car Section	Aden. ”
Aden Protectorate Levies	Aden. ”

THE ARMY QUARTERLY

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EDITORIAL

WITH the publication of this number an important change takes place in the editorship of the *Army Quarterly*. Major-General G. P. Dawney, who has been associated with the Review since its foundation, has felt obliged, owing to increasing pressure of other work, to relinquish the editorship, and Lieut.-Colonel T. A. Headlam, who became temporary joint Editor with him in 1927, has also relinquished his connexion with the Review. In future the editorial duties will be discharged by Lieut.-Colonel Cuthbert Headlam, who was joint Editor with Major-General Dawney from October, 1920, to April, 1927.

The *Army Quarterly* has now been in existence for nine years and has striven during this period to carry out the aims which its publishers had in view when it was founded. Its outlook from the first has not been militarist, and its sole object has been to provide a forum for the discussion, explanation and review of all military affairs. As was stated in the editorial notes of the first copy of the Review, "So long as navies and armies and air forces exist, and so long as the citizens of a State like ours continue to pay for and to employ them, so long is it right and useful for the citizen to know that his pipers are efficient to play such tune as he may be inclined or compelled to call. . . . War, as Clausewitz said, is 'a political instrument, a continuation of political commerce.' As long as this instrument is not absolutely obsolete, it is for the citizen to take sufficient interest in all that pertains to it to assure himself that the instrument shall be efficient if ever and whenever it shall be necessary to employ it."

Since 1920 much has been done by the statesmen of the world to eliminate, so far as is humanly possible, the catastrophe of another

great war, and the growing strength of the League of Nations is a proof that most of the nations of the world are determined to resort to peaceful settlements of the differences that from time to time may arise between them. It may be—and it is the earnest hope of all of us—that General Smuts was right when he said in his Rhodes Memorial Lecture at Oxford on the 9th of November, 1929, that war by an inevitable process would follow the chivalry of feudalism into the limbo of the past—that if “it showed its face it would be without the mask of romance which made it so attractive in the past; it would appear to be the cruel, accursed, illegal thing that it really was; the nation that resorted to it would be branded as a public danger and nuisance by the general consensus of opinion.” But probably General Smuts and most of the other distinguished men who share his opinions would be the first to admit that for many years to come the world cannot count upon the final abolition of war, and that, although to-day, with the lessons of the last war still fresh in their minds, men are determined to keep the peace, a new generation may well arise to which the arbitrament of war will not appear so cruel and futile a proceeding as it seems to us to-day.

In these circumstances it is obvious that for many years to come, while the efforts of all right-minded men and women will continuously be engaged in endeavouring to educate public opinion to be willing to accept arbitration as a final means of settling international disagreements, armed forces will be retained for their protection by the nations throughout the world.

“Until such time as nations can build the agencies of pacific settlement on stronger foundations,” said President Hoover in his Armistice Day Address at Washington; “until fear, the most dangerous of all national emotions, has been proved groundless by long proof of international honesty; until the power of the world public opinion as a restraint of aggression has had many years of test; there will not have been established that confidence which warrants the abandonment of preparedness for defence among the nations. To do so may invite war. I am for adequate preparedness as a guaranty that no foreign soldier shall ever step upon the soil of our country.”

No man who has the courage to face facts will be inclined to dispute the solid common sense of President Hoover's remarks, and only a few irresponsible idealists would venture to upbraid him for daring to suggest that he intends to be ready to resist by force of arms any invader of his country. So long as the causes of war

continue to exist, as has been often pointed out in these notes, no country can safely afford to neglect its defence organization.

The need, therefore, for a military Review such as the *Army Quarterly* still remains. The British nation, pacific though it is, is justly proud of its armed forces and realizes how vital they are to the safety of the Empire. At any moment our Navy, Army and Air Force may be called upon to protect the lives and property of His Majesty's subjects all over the world, and upon their preparedness for war ultimately depends the lives and liberties of the citizens of this country. It is only right and proper, therefore, that the nation should take an interest in military affairs and should follow closely the developments in the organization and administration of our defensive system.

The policy of the *Army Quarterly* under its new Editor will remain the same as it has been hitherto. The Review is not an official organ and the views which are expressed in its editorial notes are entirely independent. They will continue to deal with military policy in relation to general policy and to discuss matters of current military interest.

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In a recent debate in the House of Lords Lord Midleton, who was Secretary of State for War from 1900 to 1903, called attention to the reductions of the Army in recent years and to the cost of the War Office. He pointed out that in 1914 the Army stood at 176,000 men with 75,000 in India, and that now it stands at 140,000 men at home and 60,000 in India. He also informed the House that the reserves had fallen from 147,000 men in 1914 to 124,000 at the present time; that the Special Reserve had entirely disappeared; that the Territorial Army to-day numbered only 133,000 men as compared with 252,000 in 1914. He calculated that the total reduction in our military forces since 1914 amounted to 273,000 men, and Lord De La Warr, the Under-Secretary of State for War, who replied to him, made no attempt to deny his figures. When it is remembered that to-day when—to quote the words of President Hoover in his Armistice Day Speech—the world “is comparatively at peace” there are, nevertheless, considerably more men under arms than there were in 1914, and when it is also borne in mind that since the end of the World War we have, in addition to our other responsibilities, taken over the control of Mesopotamia and Palestine, it is not a little alarming to find that our military strength has been so vastly reduced. Although there is happily no sign of another war on a large scale at the present

time and the maintenance of peace is the one desire of all the great nations of the world, it must not be forgotten, as Lord Midleton pointed out in the House of Lords, that we are always liable to have trouble with peoples of admitted bravery, fanaticism and fighting aptitude with whom unfortunately protocols and pacts and conferences have little effect. Each Government in succession since the war shares in the responsibility of reducing our military forces, but hitherto such reductions have been made with the greatest care and discrimination, and the fighting strength of the forces has not been so seriously affected as might otherwise have been the case. The Under-Secretary of State explained in the House of Lords, during the course of the debate arising out of Lord Midleton's motion, that the present Government must be given time to consider the whole position thoroughly before it could come to a decision on policy, but it is earnestly to be hoped that, whatever economies may be considered necessary in the War Office Estimates this year no step will be taken that it will in any way reduce the fighting efficiency of the Army.

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Criticism is so constantly directed against the increase of the military and civil establishments at the War Office and Admiralty that it was not surprising that Lord Midleton in his speech once again drew attention to the subject. He did not charge the administration at the War Office of inefficiency, although if it is really the case, as he suggested, that a large staff is employed there merely to deal with "accretions of unnecessary work," such a charge might reasonably have been made. His contention appeared to be that as the Army is smaller than it was in 1914, there ought to be a corresponding decrease in the administrative staff in the War Office, whereas the staff employed there to-day, both military and civilian, is larger than it was before the war. In 1914, according to Lord Midleton's figures, there were 660 individuals employed in the military departments at the War Office and 611 in the civil departments; in 1929 there were 903 in the military and 1013 in the civil departments. It is not surprising that so large an increase in numbers, especially on the civilian side, should appear unnecessary to an outsider who perhaps is not entirely familiar with the extent to which the administrative work at the War Office has increased as a result of the lessons learnt in the World War and of modern developments in military science. When the whole organization of the Army is in a state of change, and when new weapons and machinery are being brought into use, it is essential that there should

be an adequate and efficient staff in Whitehall to study the mechanical and scientific developments of the day. The numerical strength of the staff at Whitehall, therefore, cannot be based on the numerical strength of the Army, but must be regulated by the amount and nature of the work which is assigned to it. It is a comparatively easy matter for a committee of business experts whose only function is to cut down expenditure at all costs, to go to the Admiralty or to the War Office, and, after what must in the nature of things be a somewhat cursory inquiry, to report that because there are more officials in these departments than there were before the war, there should be fewer officials to-day in view of the fact that both the Navy and Army are smaller. But those who are actually responsible for the efficiency of the two Services, and who are also responsible for the most economic and effective outlay of public money, must take into consideration the actual facts of the situation. The military authorities in the War Office at the present time are faced with the difficult task of maintaining a smaller Army than that of 1914, and, in order that it may be ready for the police work in any quarter of the globe for which it is primarily intended, they must provide it with the most up-to-date equipment, arms and *matériel*. The mechanization of the Army is a costly process, and, unless it is carried out with the greatest care and attention, may lead in an age of rapid mechanical development like the present to much waste of public money. The military value and mechanical efficiency of every weapon or piece of machinery that is to be utilized for the Army must, therefore, be thoroughly studied and tested in every way by experts before it is definitely adopted. Such a policy naturally entails the maintenance of a large staff, but in the long run it is probably far more economic to pay for the services of such a staff than to run the risk of supplying the Army with arms and *matériel* which owing to inadequate study and testing might well have to be scrapped almost as soon as it was supplied.

Outside critics, too, when they are attacking the staff at the War Office, are inclined to forget that the necessity for an efficiently trained staff was one of the outstanding lessons of the war. In the event of another national emergency the Army would have to be expanded and the necessity for trained staff officers would again arise as it did between 1914 and 1918. In a sense it would thus not be far from the truth to say that the smaller an Army is, the greater must be the proportion of staff officers—in a country like ours regimental officers are forthcoming in an emergency, but staff officers are of little value to the Army unless they have been carefully

trained and know their work. No one, therefore, who is at all familiar with the real needs of an army in modern times should be horrified because there may be 243 more staff officers in the War Office now than there were in 1914—on the contrary, he should welcome the fact as a sign that those who are responsible for our Army's preparedness for war to-day have not shut their eyes to a flaw in our military machinery which was only too apparent in 1914.

The increase in the number of civilians employed in the War Office may appear less easy to account for than the increase in staff officers—it can, however, as a matter of fact, be explained without much difficulty. It can safely be said that it is largely caused by reason of new work thrown on the department by legislation passed since 1914 and by the executive decisions of successive Governments. It should also be borne in mind that constant efforts are being made to reduce the clerical staff and that the Treasury reported to the Estimates Committee of the House of Commons no longer ago than 1928 that they were “satisfied that continuous efforts are being made by the Army Council to reduce the number and cost of staffs, military and civil, wherever possible.”

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President Hoover's annual Message to Congress deserves the close attention of all peace-loving people in this country. In the first place it discloses the startling fact that in the United States of America the bill for defence purposes has gone up from 207 million dollars in 1914 to 7218 million dollars in 1929. Of course, some of this additional expenditure is no doubt due to increased scales of pay for officers and men, but, nevertheless, it should not be lost sight of that in the years during which Great Britain has steadily reduced her military strength as a practical example to the world in disarmament, the Government of the United States of America has, if reserves are included, increased the number of its armed forces from 299,000 officers and men in 1914 to 728,000 in 1929. Mr. Hoover, with what *The Times* describes “as admirable candour,” himself pointed out in his Message that the total of American military expenditure “is in excess of those of the most highly militarized nations of the world.” It might be interesting to the average American citizen to know what are the increased risks of war contemplated by his leading statesmen, since the conclusion of the Great War to justify such an immense addition to his country's armed forces, especially in view of the fact that, as a signatory of the Kellogg Pact, the United States of America are pledged not to use war as an instrument of national policy. But presumably it is from

a defence point of view alone that this great force is held to be necessary by the President, for only in the event of the approaching Naval Conference proving successful does he appear to contemplate any kind of reduction in armaments. And if the Conference is not successful, he tells his countrymen quite frankly that the national expenditure on armaments will have to be increased. "If we are to be compelled to undertake the naval construction implied in the Washington Arms Treaty as well as other construction which would appear to be necessary if no international agreement can be completed, we shall be committed during the next six years to a (naval) construction expenditure of upward of \$240,000,000, besides the necessary further increase in costs for annual upkeep." No doubt this information is intended as a hint to other nations that if they do not fall in with the wishes of the American Government regarding a reduction in naval armaments, the United States propose, for purposes best known to themselves, considerably to increase their naval strength, and, as all the world knows, they are well able to do so if they merely utilize for the purpose the large sums of money that are annually paid to them as war debts by their Allies in the Great War. It may be that at a time like the present this rather threatening attitude on the part of one of the Great Powers on the eve of an international conference may prove effective in bringing about a naval agreement on the lines that President Hoover desires. But it is difficult for those who have the cause of international good fellowship at heart and regard the United States of America as an entirely pacific nation to reconcile this attitude of the President with the spirit that is supposed to be behind the Kellogg Pact. A reduction in naval armaments is to be brought about by means of a threat of a large increase in its naval strength by the richest nation in the world which already has a fleet almost equal to our own. The Americans must not be surprised if their President's methods of diplomacy are misunderstood by simple Europeans, and if doubts are raised as to the genuineness of their love of peace. No self-respecting nation cares to be bullied, and no people in the world can ever be satisfied in its own mind that the size either of its fleet or of its army or of its air force can be decided for it by some other people—even the people of the United States of America.

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It is just as well at a time like the present, when so many enthusiastic persons appear to be convinced that war can be banished from the world by pacts and conferences, that the attention of the peace-loving people of this country should be directed to the first

actual test of the value of the Kellogg Peace Pact by which so many nations recently pledged themselves to renounce war. The Soviet Government of Russia signed this Pact and yet it sent a considerable force of troops into Manchuria "as an instrument of national policy." It may well be that the Russians had a real grievance against the National Government of China and that from the standpoint of the old world there was ample justification for their making a military demonstration. But the fact remains that within little more than a year of its signature of the Pact one of the principal nations of the world has broken its pledge. Those amongst us who are always so anxious to look favourably on the Bolsheviks and their policy may endeavour to excuse their action against the Chinese by pointing to the fact that the Russian troops have now been withdrawn from Manchuria. But such withdrawal, if it has actually taken place, does not really excuse the Bolsheviks for what they have done. They have invaded another country with an armed force after signing an agreement that they would not resort to war "as an instrument of national policy." Incidentally, they have also demonstrated the inherent weakness of the Kellogg Peace Pact. It contains no sanctions—indeed, if it had contained sanctions, it would probably never have become an accomplished fact. Once broken by any signatory it ceases to have any kind of validity in the area where the infringement of its articles has taken place. Its sole efficacy depends upon public opinion, and it can only prevent war in countries the peoples of which are fully convinced that war is a wrong way of settling an international dispute.

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The military exercises of 1929 were on a small scale and were devoted more to the testing of organization and equipment than to the carrying out of tactical experiments. In the matter of organization the exercises appear to have made it clear that a light tank battalion is out of place as part of an infantry brigade, and that, although occasions may arise when light tanks will be found useful when working in very close cooperation with infantry, they should be a divisional unit and not form part of a brigade.

The value of light tanks acting in conjunction with medium tanks was amply proved, and the latter were used with much greater freedom and at a greater pace than has before been the case. This bears out the forecast made by the military authorities in the pamphlet entitled "Mechanized and Armoured Formations" that was issued last year, and, although it is unlikely that we shall be provided with armoured brigades for many years to come, it is

satisfactory to feel assured that the organization on which they are to be formed is laid down on sound lines. The actual attack by a force consisting of two companies of light tanks and two companies of medium tanks which was carried out in the exercises was extremely interesting and showed a distinct improvement in the control and manœuvring of the machines.

It appears that the Carden-Loyd machine which was used to act as a light tank does not provide a sufficiently steady gun platform, nor has it the cross-country capacity and the speed that are required. It is reported, however, to have proved serviceable as a machine-gun carrier with infantry, as its small size and its immunity against small-arm fire enable it to reach fire positions which would otherwise be inaccessible. The experiment of equipping infantry battalions with this type of machine would seem, therefore, to be a successful one. The mobile workshops were extremely efficient throughout the exercises, but, admittedly, much has yet to be learnt regarding the upkeep of vehicles and their supply with petrol and oil before a definite war organization of such workshops can be decided upon. Weather conditions on Salisbury Plain last year were so good that breakdowns were few and far between, and the test, in consequence, to which the work of carrying out repairs in the field was put was by no means an exacting one.

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While some mechanical enthusiasts would have us believe that "the mechanization of the Army," as it is termed, is proceeding too slowly, there is little doubt that the military authorities are continuing to work steadily along the right lines. They are moving forward cautiously in order to economize money and also to make sure that they are providing the Army with machines of the most useful and practical type. It is never easy to visualize what may be the development of any particular machine or weapon—and yet it is in this development that its usefulness must ultimately depend. It is only by testing and re-testing a machine or weapon that the possibility of its development can be adequately gauged. The twofold object for which the Army is being reorganized on a mechanical basis should never be lost sight of. First, it is only common sense to keep our military defence system in accord with the normal habits and customs of the civilian community so that, in the event of another great national emergency, it may be possible to utilize effectively the whole strength of the nation. A large proportion of the travelling done to-day is in petrol-driven vehicles, and it would be ridiculous if the Army still continued to move entirely on

men's feet and in horse-drawn vehicles. Secondly, mechanization is being developed in order to provide our much-reduced Army with transport and weapons calculated to enable it to carry out the many tasks that it may be called upon to perform more expeditiously, with less loss of life and more cheaply.

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The exercises, despite the advance of mechanization, would seem conclusively to have shown that cavalry has still an important rôle to play in war. Cavalry, acting in cooperation with mechanized forces, proved extremely valuable in reconnaissance work, and it was made amply clear that men on horses can penetrate into and retire from country which is inaccessible to any type of mechanically-driven vehicle yet invented. For a long time to come it is likely that cavalry will be required to act as the eyes of the Army, and the training and equipment of this arm of the Service to ensure its efficiency under modern conditions of warfare call for the most anxious attention of the General Staff. It is to be hoped that no further reduction is contemplated in the strength of the cavalry.

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Readers of the *Army Quarterly* may be interested to hear that the October issue of the Review was refused admission into Soviet Russia. This number contained an article on the Red Army which apparently did not find favour with the Soviet authorities. The article was based exclusively on recent Russian documents, and the author's familiarity with the history and organization of the pre-war Russian Army enabled him to give what is probably an accurate account of the organization and administration of the Soviet forces which have many characteristics in common with those of the old régime. A second article on the Red Army by the same author is published in this number, and it will be interesting to see whether it proves more acceptable to the Soviet military authorities.

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The news of the death of M. Georges Clemenceau, at the age of eighty-eight, has been received with the greatest regret by the British Army, for no man played a more successful and a more patriotic part in the Great War than the great French statesman whom France and her Allies are mourning to-day. He became Prime Minister in November, 1917, and thus came to the assistance of his country at a most difficult stage in the war when, if victory was to be secured, the most drastic steps were necessary to restore the confidence of the French nation and to revive the moral of its Army. Clemenceau was the only man capable of such a task, and

right well did he perform it. Fearless, and inspired with the will to win, he was determined to beat the Germans at all costs, and his declaration to the French Parliament on taking up office summed up his entire policy: "The War and nothing but the War," was, he stated, his Government's one thought. "We have one sole, simple duty—to stand fast with the soldier; to live, suffer and fight with him; to cast from us everything that is not for France." And when, in the disastrous days of the enemy's offensive in 1918, it appeared that the Capital was in danger, Clemenceau's indomitable courage was expressed in the words, "I shall fight in front of Paris. I shall fight in Paris. I shall fight behind Paris." His energy, his determination and his intense patriotism carried all before them. His constant visits to the troops in the field, his stern prosecution of those who were suspected of disloyalty, his unswerving support of Marshal Foch, his invincible optimism, gave new heart and life to the national defence and earned for him the undying gratitude of his countrymen.

At the Peace Conference at Versailles, of which he was President, Clemenceau, as in the war, had only one object in view—the security of France. He did not share President Wilson's view that, as a result of the formation of the League of Nations, "national purposes had fallen into the background." He was firmly determined that his country should be made safe against any future German invasion, for he was convinced that sooner or later the Germans would endeavour to reverse the decision of 1918. It was for this reason that he succeeded in securing the agreement by which Great Britain and the United States of America promised to come to the assistance of France in the event of another war being forced upon her by the unprovoked aggression of Germany. This agreement subsequently fell to the ground owing to the action of the American Senate which refused to ratify President Wilson's pledge, but, none the less, the obtaining of it was a personal triumph for Clemenceau. With the same object in view—the security of his country—he did all in his power during the course of the peace negotiations to strengthen the position of the new States in Eastern Europe, because in them he recognized useful buffers against Germany. He did not support Foch, however, in his demand for the Rhine as the "natural" frontier of France because he was wise enough to see that, in the event of another war, the inclusion of a large German population might well be a source of weakness to his own country.

After the signing of the Peace Treaty and his failure to become President of the Republic—a position in which he would have been

particularly ill-suited—Clemenceau retired into private life and devoted the remainder of his days to foreign travel and to literary work. He has left behind him the record of a wonderful career devoted to the public service and to what he believed to be the cause of justice and truth. To Great Britain he was always a loyal friend, and he earned the respect and admiration of all the Englishmen with whom he came in contact.

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The death of General Sir Charles Carmichael Monro, Bart., G.C.B., G.C.M.G., G.C.S.I., Colonel of the Queen's Royal Regiment and Bath King of Arms, which occurred in London on the 7th of December, will be mourned by the whole Army, for no British leader in the Great War was more genuinely liked and respected than the late General. He was a man who never courted popularity, and did whatever work he was called upon to do quietly and efficiently without any kind of personal advertisement or thought of self. In France, in Gallipoli, in India he proved himself an able soldier and a man who had the courage of his convictions when the moment came for making a difficult decision.

Sir Charles was born in 1860, and, on passing out of Sandhurst in August, 1879, was gazetted to the Queen's, now the Royal West Surrey, Regiment. After being adjutant of the 1st Battalion he passed through the Staff College and then joined the 2nd Battalion in India, where he saw active service with the Malakand Field Force, in the Mohmand expedition and in the Tirah campaign. In 1898, after having been promoted major, he was given his first staff appointment, brigade major at Gibraltar, and was soon afterwards transferred as D.A.A.G. to Guernsey. In the South African War Sir Charles, as D.A.A.G. of the 6th Division, commanded by General Kelly Kenny, took part in Lord Roberts's operations which led to the capture of Pretoria, and subsequently served with distinction in Cape Colony. For his services in the campaign he was promoted brevet lieut.-colonel. On his return to England at the close of 1900 he was appointed chief instructor of the School of Musketry at Hythe and was made Commandant eighteen months later, a post that he held for four years. During his period at Hythe he did much to improve the musketry training of the Army and did all that he could to impress upon the military authorities the necessity for an increase in the establishment of machine guns. Sir Charles was an infantry soldier who realized to the full the task that would fall upon the infantry in a modern war. After leaving Hythe he commanded the 13th Infantry Brigade in Ireland, with

conspicuous success from 1907 to 1911. He had been promoted major-general in 1910, and in March, 1912, after some months on half pay was given the command of the 2nd London Division, Territorial Force. On the outbreak of hostilities in 1914 he was transferred from this command to that of the 2nd Division at Aldershot. With this Division he went to France and earned a great reputation as an energetic and determined commander in the early engagements of the war. At the close of 1914 Sir Charles was selected to succeed Sir Douglas Haig in the command of the I Corps and was promoted lieutenant-general. In July of the following year he was appointed to command the newly formed Third Army. A few months later, however, he was sent to the Dardanelles to advise the Government on the future course of the operations in that theatre of war. He gave an unhesitating opinion in favour of the evacuation of Gallipoli—an opinion that was endorsed by Lord Kitchener—and on the 19th of October he was appointed to succeed Sir Ian Hamilton as C.-in-C. of the Mediterranean Expeditionary Force. After the evacuation for which as C.-in-C. he was responsible—but for the success of which he generously gave all the credit to those who worked under him—Sir Charles returned to France and for eight months commanded the First Army. Then he was offered and accepted the command of the Army in India—a post which he held from October 1916 to 1921. In India he had a difficult and anxious time, but he proved himself a strong and capable administrator and his term as Commander-in-Chief greatly added to his high reputation. When he arrived in India the situation in Mesopotamia was critical, and, although the capture of Baghdad in the spring of 1917 relieved the anxiety in that theatre of war, Sir Charles during the next two years was faced with many difficult problems in the Middle East, in Palestine, in Arabia and in Africa where Indian troops were being employed. His most difficult time in India, however, came after the Armistice, when in 1919 he was called upon to cope simultaneously with serious civil disturbances at Amritsar, an Afghan war and a rising on the North-Western Frontier. He displayed great courage, good military judgment and considerable political foresight in his manner of dealing with these various difficulties, and, when he handed over his command to Lord Rawlinson towards the end of November, 1920, he had succeeded in restoring peace with the Afghans and in re-establishing order in India. Three years later he was appointed Governor of Gibraltar in succession to Sir Horace Smith-Dorrien, a position in which his genial sagacity and tact made him extremely popular. On his

return to England in 1928 Sir Charles retired from public life. He was the best type of British officer—brave, level-headed, unassuming, conscientious—and in a long and distinguished career devoted to the service of his country proved himself a leader of men and a wise and absolutely honest public servant.

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Lieut.-General Sir Arthur Sloggett, K.C.B., K.C.M.G., K.C.V.O., who died suddenly in his seventy-third year on the 27th of November, was Director-General of Medical Services in France and Chief Commissioner of the Red Cross throughout almost the entire period of the Great War. He was a student at King's College, London, of which foundation he subsequently became a Fellow, and took his degrees as M.R.C.S. and L.R.C.P., Edinburgh, in 1880, joining the Army Medical Service the following year. He served on the Indian frontier in 1884 and with the Dongola expedition in 1896, and for his services in the latter campaign was promoted Surgeon-Lieut.-Colonel. In the expedition on the Nile two years later Sloggett was senior medical officer with the 1st Brigade and was severely wounded at the battle of Khartoum. In the South African War he was first in charge of the Imperial Yeomanry Hospital and was afterwards P.M.O. in a general hospital and commandant of the Deelfontein district. After the conclusion of hostilities in South Africa he served as P.M.O. in London and in 1908 went to India as P.M.O. Bombay Presidency, being promoted Director of Medical Services in India in December, 1911. A few years later—in June, 1914—he succeeded Surgeon-General Sir Launcelotte Gubbins as Director-General, Army Medical Service, and shortly after the outbreak of the Great War was appointed Director-General, British Armies in France and Chief Commissioner of the British Red Cross and of the Order of St. John of Jerusalem. Under his guidance and control the medical arrangements in France during the war worked with admirable precision and efficiency. "His wide outlook," as a correspondent to *The Times* writes, "enabled him to act with a minimum of red tape, and he was always willing to take advice from those whom he thought competent to give it. Under his guidance a system was gradually brought into being which made the medical organization a model both at the time and for the future. The outstanding features of his character were tact, tolerance and business capacity."

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General of Cavalry von der Marwitz died last November in Berlin at the age of seventy-three. In the early part of the war his

name was as well, if not better, known to the B.E.F. as that of Colonel-General von Kluck, and in 1917-1918 he again became one of our most serious opponents.

Georg Cornelius Adalbert von der Marwitz was born on the 3rd of July, 1856, and belonged to an old Prussian county family. Entering the Army through the Cadet Corps, he was gazetted in 1875 to the 2nd Guard Uhlan Regiment, and, after passing through the *Kriegsacademie* 1883-1886, was from 1888 to 1892 on the General Staff. Then he served for two years as squadron commander in the 2nd Guard Dragoons, six years on the General Staff, five years in command of the 3rd Guard Uhlans, two years on the Staff, four years in command of the 1st Guard Cavalry Brigade, one year in command of the 3rd Division, and was then in 1912 appointed Inspector-General of Cavalry. On the declaration of war in August, 1914, he was given the command of the II Cavalry Corps. Misdirected by his Supreme Command, which believed that the B.E.F. would land, as the British usually did, at Calais and Boulogne, his Corps pushed due west through Belgium, and on the day of Mons was looking for the B.E.F. near Tournai. Then ordered to "pursue," he wheeled his Corps due south, and in the early morning of the 26th of August his 2nd, 4th and 9th Cavalry Divisions, with five Jäger battalions, cyclists and machine-gun companies attached, ran into Smith-Dorrien's divisions at Le Cateau. After an initial attempt at an attack on foot, the cavalymen made little further effort and were found by the German infantry when it came up taking cover behind the houses of the villages. Misdirected again next morning, Marwitz's Corps went westward to Bapaume and then south via Péronne and Compiègne, and in the mist of the early morning of the 1st of September the 4th Cavalry Division, which was leading, came into contact with the British 1st Cavalry Brigade and part of the 4th Division at Néry. After an initial surprise, this Division was scattered and broken up, and, leaving behind all its guns, took refuge in the woods until the British columns had moved on southward. The practical destruction of the 4th Cavalry Division was not without effect at the battle of the Marne, when what remained of it was on Kluck's outer flank, and discovered nothing of Maunoury's flank attack. Marwitz's other two cavalry divisions, in cooperation with Richthofen's I Cavalry Corps, led Kluck's swing eastward and advanced over the Marne. When Kluck, alarmed by Maunoury's appearance on his western flank, withdrew his corps from facing south to facing west, the four cavalry divisions, with some infantry assistance, were left to hold the gap. The story

of their complete failure has not yet been written in German ; they fell back hurriedly from the Grand Morin to the Petit Morin, and then over the Marne, not destroying the bridges except at La Ferté Jourre. When Lieut.-Colonel Hentsch, the emissary of the Supreme Command, motored behind their front to go from the Second Army to the First Army headquarters he found and reported that there was a state of panic. The particulars of the last phase on the Marne are given in the Fourth Part of the German Official monograph, *Das Marnedrama*, reviewed in this number. Marwitz, ordered by Kluck on the last day of the battle to counter-attack the British with his II Cavalry Corps, Kraewel's Composite Brigade and the 5th Division, found the troops scattered and in confusion, and was unable to make any offensive movements.

In the Race to the Sea, Marwitz, with the great bulk of the German cavalry under his command until the 29th of October, covered the German outer flank as it extended northward towards Ypres, and his evening reports, giving the position of his corps, sent by wireless were eagerly looked for and read by the Allies ; Marwitz began to be considered almost as an old friend. The action of the German cavalry at Ypres is recorded in the British Official History. Its main task was to fill the line until the infantry arrived, but, on the 22nd-25th of October, Marwitz thrust it against the British Cavalry Corps on the front Messines—Zandvoorde without success.

Towards the end of the first battle of Ypres, the German cavalry was sent to Russia and Marwitz accompanied it ; but, on the 24th of December, he was given the command of the XXXVIII Reserve Corps, subsequently called the Beskiden Corps, which he held until the 18th of October, 1915, taking a prominent part in the winter battle of the Masurian Lakes, in resisting the Russian advance into the Carpathians in the winter of 1914-1915, and in the counter-attack towards the end of 1915. Then for a year he commanded the VI Corps in Linsingen's Army Group, and was thrust back in the Brusilov offensive. Leaving Russia on promotion to command the Second Army holding the Cambrai sector, he arrived in time to witness another retirement of German troops before the tank attack of the 20th of November, 1917, but this time he was able to hit back very effectively.

With the Second Army, between the Armies of Hutier and Below, he took part in the great offensive of the 21st of March, 1918. He achieved no startling success, but Hutier's progress enabled him to approach very near to Amiens. It was on his troops that another

tank surprise fell on that "black day" for the German Army, the 8th of August, 1918. This third great reverse seems to have unnerved him, and he was transferred to command the First Army in a quieter sector around Verdun, only to be driven back by the American Armies. He probably took part in more German reverses than any other general of his rank.

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Prince Max of Baden, the last Chancellor of the German Empire under Wilhelm II, died in November at the age of sixty-two. His Memoirs were reviewed in the *Army Quarterly* under "Foreign War Books" in January, 1929. Originally in the Army, the Prince, who was nephew and heir to the Grand-Duke of Baden, had socialistic and pacifist leanings, and retired in 1910, busying himself during the war with Red Cross work and the care of prisoners of war. He was appointed Chancellor in the closing days of the war, and, on his arrival in Berlin on the 1st of October to take up his duties, found the Kaiser and the military leaders beaten men and in a state of panic. He was informed that President Wilson's "Fourteen Points" had been accepted, and he was directed to arrange an armistice. He begged for time, for a "breathing space of ten, eight or even four days," before he appealed to the enemy. The case of Germany could not be so desperate. But he was told that the gravity of the military situation admitted of no delay, and eventually Hindenburg put his demand in writing: "The Supreme Command insists on its demand of Sunday the 29th of October, that a peace offer to our enemies be issued at once."

When Prince Max handed the Chancellorship over to Herr Ebert, the latter begged him to remain as Regent, but this offer he refused to consider, and, renouncing all claim to the succession to the throne of Baden, he retired to his estates.

10th December, 1929.

FRANCE AND HER ARMY

A PROBLEM OF NATIONAL DEFENCE

THERE appears to be a body of French public opinion which is in favour of a long-service professional army rather than of a national army recruited on a short-term basis. Considerable criticism has been levelled at the scheme adopted since the World War for the reorganization of the land forces of the Republic, a scheme which will not be in complete working order until the year 1931.

General Debeney, who commanded the French First Army in 1918, has been Commandant of the Staff College, and is now Chief of the Staff, in a recent article gives a lucid explanation of France's accepted policy of national defence, after demolishing the arguments in favour of an *armée de métier*.^{*} Remarking that in matters military as in other things France has always been receptive of foreign ideas, he acknowledges the very good reasons which existed after the débâcle of 1870-1871 for modelling a national army after the Prussian pattern. But, strangely enough, the French champions of a professional army again see in post-war Germany an example to be followed in spite of the fact that defeat has compelled her to cut down her armed forces. Germany has a professional army numbering 100,000 long-service men ; 150,000 police (*Schupos*) ; and, it is reckoned, possibly 250,000 volunteers trained more or less in secret. Thus some apprehensive Frenchmen see over 400,000 men ready at once at the outbreak of war to act upon the German principle—restated recently by General von Seeckt—of immediate invasion of enemy territory. It has sufficient reason : the enemy's mobilization difficulties are increased thereby ; his concentration is delayed ; his air forces are obliged to operate from more distant bases ; and the moral effect produced is very great. It is argued that in the face of this menace the only effective precaution which France can take is to organize a professional army of about equal size which would be in a similar state of readiness.

^{*} See "*Armée Nationale ou Armée de Métier?*" *Revue des Deux Mondes*, 15th of September, 1929.

General Debeney forbears to point out that such an army as Germany could put in the field at the present time would, so far as we know, lack most of the technical equipment and auxiliary armament which is essential to success in modern warfare. But he does insist that Germany is merely doing her best with the means allowed her by the Peace Treaty. It is useless to contend that she still leads the way in organization for war on land, and has declared for a small professional army of her own choice.

He then demonstrates clearly how the resources of France and the temper of her people combine to make the creation of a long-service professional army impossible. If France were to confide the protection of her long land frontiers to such a force, it could not well consist of less than 300,000 men, the figure of the 1914 *couverture*. How could this number of long-service professional soldiers be obtained? The answer is that they are unprocurable.

The description which is given of France's resources in manpower, and of the extent to which they can be called upon, not only provides a complete answer to the advocates of a French professional army, it acquits the French, as a nation, of any tendency to military aggression, and affords us a very clear understanding of France's problem of national defence.

At present only 106,000 long-service men are actually provided by the French law. Some of these are required for employment with the North African Army, a proportion go the Navy, and others are absorbed by the cadres engaged in the training of the short-service contingents. General Debeney reckons that not more than 46,000 would be available for a professional army concentrated for instant action upon the frontiers of France.

Now the annual contingent coming up for military service numbers 240,000 and of this figure, after the demands of North Africa, the Navy and the various auxiliary services have been satisfied, there remain 180,000 men. As they come forward in two half-yearly contingents only 90,000 more or less trained men can be counted upon at any one time. If all these were drafted into the professional army, they would bring the total up to less than 140,000, of whom two-thirds would have from six to eleven months service. Over 160,000 men would still be lacking.

The General is confident that to recruit an extra 160,000 long-service men would involve an expenditure which the country would not tolerate. The only alternative would be to divide—presumably by ballot—the annual contingent into long-service and short-service categories: an abrogation of the accepted principle of equality of

service which would be enough to wreck any French Government which tried to insist upon it.

It is argued that, even if it could be created of sufficient strength, the professional army would be a retrograde step and a menace to national security. Such a force would tend to become a separate entity having nothing in common with the reserves who would constitute the "army of the interior." As time went on the gulf between the two would grow wider and wider. On occasion, for economy's sake, the "army of the interior" might be scamped of equipment and armament. There might come a day when a national emergency would reveal the reserve force as existing largely upon paper, its instruction rudimentary, its munitions and armament incomplete. As to the quality of the professional army, the General fears that it would tend to become mechanical in manœuvre, its tactical doctrine inspired by theories rather than founded upon the problems of real warfare. It would lose touch with the nation as a whole and become immune alike from healthy criticism and the penetration of new ideas. Meanwhile, the "army of the interior," accustomed to be looked upon as of secondary importance, would deteriorate in moral. Here, as General Debeney says, is a vision of the French Army previous to the war of 1870.

So we come to a description of the French Army of to-day. The laws of 1927-1928 provide for a nation in arms; and although the interest of the public and the discussion in Press and Parliament is chiefly confined to the reduction of service to one year with the Colours, French military institutions are being re-made.

Many changes are taking place in the active army. Some units have been disbanded, and on mobilization, the active formations no longer absorb all the reserves. To a great extent the reserves now have a separate existence. Their instruction and training are provided for without disturbing the organization of the active army. A new feature is the augmented specialized *personnel* recruited on a permanent basis: military police, gendarmes and employees of various grades all comprising a large number of non-commissioned officers.

The reasons given for the increase in this specialized *personnel*—it is hardly an innovation, for many of these services have existed since 1875—are of particular interest. Consequent upon the introduction of aeroplanes, tanks, mechanical transport, etc., armament and material have increased four-fold since 1914; and this increase has not resulted in such an economy of man-power as might be imagined. Requisition and industrial mobilization are

inevitable upon the outbreak of war, but both involve delay : large quantities of material must be kept in stock ready for instant use. A large number of men—as many as would make up several divisions—are needed to look after these stores, to provide guards and to keep everything in serviceable condition.

The number could be provided without extra expense to the country under the three years' service law, although, from the military point of view, the employment of something like the whole of one bi-annual contingent represents an economy effected only at the expense of efficiency. But after 1918 France was obliged to reduce the period of service in order to recover from the economic effects of the World War. Her men could not be spared from industry for the whole three years. Moreover, her frontiers were not so vulnerable. So the reduction in the period of service was inevitable, and the problem of the provision of the necessary permanent *personnel* became serious when the three years was reduced to two. When the law of 1923—too hastily as is now considered—instituted eighteen months' service, the permanent *personnel* had not increased in sufficient proportion to take over the duties for which they were then required. There followed the military operations in Syria and Morocco which resulted in something like a financial crisis. The introduction by degrees of one year service was the chosen path of retrenchment, but care was now taken that the annual contingents should not be called upon to provide any men for extraneous duties—duties consequent upon the augmentation of material, in connection with mobilization, service with instructional cadres, employment in the preservation of internal order, etc. All these come within the province of the specially enlisted *personnel*, the expansion of which has now permitted of three great reforms.

The first will gradually bring France to the stage when the age of enlistment becomes fixed at twenty-one years ; and although there may be a temporary deficiency in numbers this is expected to be remedied by the year 1931. The second is the before mentioned reduction of the term of service with the Colours to one year. The third is the organization of instruction, by the *garde républicaine mobile*, before enlistment.

So France sets her military house in order. Her Colonial Army has been doubled since the World War. Her Metropolitan Army is to be located in twenty self-contained regions each possessing its own means of mobilization and therefore able to put a certain number of divisions in the field. Each will be able to mobilize one active division without delay and proceed at once with the formation of

others from its reservists. Corps organization has lost its importance. During their one year of service, the whole of which will be devoted to training, the men will receive instruction in their regiments ; and the division, the smallest formation which comprises troops of all arms, will carry out its manoeuvres. The handling of larger formations, chiefly regarded as a matter of the training of the higher staffs, will, as a general rule, be practised without troops.

General Debeney then explains *la couverture*, the system upon which the protection of the frontiers will depend when the French Army of the Rhine is withdrawn. On the outbreak of war each of the twenty districts mentioned above will rail its active division to the frontier, and will mobilize its reserve divisions. Obviously, the first four or five days of hostilities will be the critical period, for railways have only a certain capacity and danger may threaten at more than one point. The troops normally located on or near the frontier will certainly need more rapid reinforcement, so, in case of foreign aggression the Government will be empowered to call up at once all three of the youngest classes of reservists in any desired district. This defensive measure, in which the principle of a nation in arms is at once seen in operation, has to be announced in the French Chamber, and the League of Nations would be informed. Another important factor in the defence of French soil is to be the extensive modern system of frontier fortification which has been put in hand.

By the end of the year 1930 it is anticipated that the centres of mobilization will be settled ; the short one-year service system in full operation ; the uniform age of enlistment at twenty-one attained ; the frontier fortifications practically completed ; and the Army up to strength.

General Debeney goes on to dispose of the notion that an ever-ready professional army can by instant action obtain a decision and practically ensure a short and successful conflict. He thinks that modern invention tends to lengthen war ; and whilst the first blow—he calls it “*la manoeuvre von Seeckt*”—delivered perhaps by massed bombing aeroplanes—would certainly do great damage, its effect would not be decisive. Air-defence measures cannot altogether be discounted, and it is easy to over-rate the moral effect of such an attack. The World War showed that an initial decisive success must not be counted upon ; in a word, those who organize a nation's defence must be prepared for *la guerre tout court*, not for *la guerre courte*.

And so, affirms the General, modern war cannot mean less to

a nation than the nation in arms. It is of no use to say send colonial troops, send a professional army, keep the war at sea, or in the air. Nothing will do but the united effort of the nation. Some day he thinks that the League of Nations may be able to devise some practical means of compulsory arbitration ; but that day is not yet. Meanwhile, the most peaceful nation cannot neglect its defensive measures, and there is less likelihood of its being dragged into a conflict if it is in a condition to offer a strenuous resistance. These sentiments may seem platitudes to professional soldiers and most clear thinkers, but there are plenty of militant pacifists in this country and in France who are doing their best to spread a very different doctrine.

Finally, there is the difficult problem of the reduction of armed forces ; difficult because it is impossible to compare the armies of different nations. Some depend upon the existence of numerous reserves created by compulsory military service, others have few or no reserves but a compact active army recruited by long service. The two cannot be compared ; there is no common denominator. If all nations had either compulsory service—a militia—or a professional army of a certain size, the “ technicians ” could apply their “ co-efficients and ready-reckoners.” But a purely militia system for France would mean an undefended frontier which has been crossed by an enemy four times within the century. And the General asks how soon the “ Anglo-Saxons ” will be prepared to inaugurate a militia recruited by compulsory military service, even if the term with the Colours be very short. He is satisfied that France has shown her genuine desire for peace by the reductions made in her Army since the World War, and that her present military system is her best guarantee against foreign aggression.

THE GERMAN OFFICIAL HISTORY OF THE WAR

SIXTH VOLUME *

THE sixth volume of the German Official History of the War continues the story of the autumn campaign of 1914 on both fronts, broken off in the preceding volume on the 3rd of November, when the attempts to break through north-east and south-east of Ypres had failed, and Hindenburg having fallen back after the Austro-German offensive against Ivangorod-Warsaw, the Russians were advancing through Poland towards German territory.

On the 4th of November the Supreme Command at Mézières received Hindenburg's report that he intended to try and stop the Russian advance by a flank attack from the north from the line of the fortresses Posen-Thorn. The date of the attack was not fixed.

“ On the same day, Lieut.-General von Falkenhayn had made the important decision to continue the attack on Ypres, in spite of the extremely critical situation in the East, so that by the capture of the hotly contested Ypres he might achieve a visible success by force of arms in the West. The East had for the moment to help itself out of its difficulties with its own forces—as best it could. On a decision of the campaign in Flanders General von Falkenhayn no longer counted at this time.”

Very unfavourable reports of the state of the Austro-Hungarian Army reached him next day both from Hindenburg and General von Freytag-Loringhoven, the German plenipotentiary at the Austro-Hungarian headquarters. There was no doubt that the Armies on the Eastern front could not be expected, without help, to hold out for much longer against the great Russian numerical superiority.

During the next few days Falkenhayn seems to have come to the conclusion that he must stop further operations in the West

* *Der Weltkrieg 1914-1918. Bearbeitet im Reichsarchiv. Die militärischen Operationen zu Lande. Sechster Band. Der Herbst-Feldzug 1914. Der Abschluss der Operationen im Westen und Osten.* Berlin : Mittler, 26 marks.

about the middle of November, and transfer the centre of gravity of the war to the East. The Kaiser, too, was pressing him to send help to Hindenburg. On the 8th of November he consulted the Chief of the Field Railways as to the capabilities of the railways, and the latter informed him that he could transport four corps simultaneously, each with forty trains daily, two corps from the right wing, and one each from the centre and left. In case of necessity a fifth corps could be carried. Without obtaining some sort of visible success first, Falkenhayn believed that he could not venture to weaken the front in the West. He fixed on the capture of the Ypres Salient for this purpose. That achieved he felt that he could denude long stretches of the front and thus provide troops for the East without affecting the spirit of the Army or damaging Germany's position in the political world. There was a drawback. Should success fail, the removal of troops to the East might easily be mistaken for recognition of defeat. But in view of the great exhaustion of the French and British, he thought that the conquest of such a limited objective with the fresh troops and material at his disposal was certain. We see that the 11th of November, 1914, was a far greater triumph for Sir Douglas Haig's forces than has hitherto been imagined.

Since the 19th of October Falkenhayn had been turning over in his mind the form of an offensive in the East. It was the manœuvre of the flank attack which Hindenburg was preparing to make with three corps. Falkenhayn, however, planned to carry it out with twelve; and to make the force as large as possible he was prepared to abandon the whole province of East Prussia and part of West Prussia to the enemy.

On the evening of the 8th of November he despatched Lieut.-Colonel Hentsch on a mission to Austro-Hungarian headquarters. In those days, among those who knew the full circumstances of the end of the battle of the Marne, Hentsch was apparently by no means considered in fault, and was still in favour and holding his old post. He was, however, given instructions in writing this time. He was to express regret that the Germans could not come to the assistance of the Austrians sooner, to say that Falkenhayn hoped in about a fortnight to send five or six corps to the East, explain the plan of the offensive with twelve German corps, and beg that the Austrians would take measures to hold as many Russians as possible on their front. Not a word of all this appears in Falkenhayn's book "The Supreme Command and its Critical Decisions." Field-Marshal von Conrad inquired on what day the German corps would attack, and

Hentsch replied, on the 22nd of November. The Austro-Hungarian Chief of the Staff then remarked that Hindenburg was going to make the same attack with three corps on the 11th; would he do so or wait now until the 22nd? To this Hentsch answered that General von Falkenhayn had not been informed of the intention of the Commander-in-Chief East as to the date. Hindenburg equally had not been told of Falkenhayn's plans. All that Hentsch could say was that he would inform Hindenburg that he might expect a reinforcement of five or six corps in a fortnight and leave it entirely to him whether he would wait or not. Meantime, on the 9th, a day after Hentsch's departure from O.H.L., a telegram had reached Falkenhayn from Ludendorff begging for reinforcements for the East, and he sent the following telegram to Freytag-Loringhoven: "Lieut.-Colonel Hentsch to return by Posen [Hindenburg's headquarters] to orientate himself there on the situation and intentions. Then immediately return here." This left in doubt whether Hentsch was to tell Hindenburg of Falkenhayn's plans. When he arrived at Posen on the evening of the 11th the offensive had already begun. The official history suggests that for a second time Hentsch had been sent to pay his visits in the wrong order. He should have gone to Kluck before Bülow on the 8th of September, and to Hindenburg before Conrad. Hentsch reported by telephone to Falkenhayn that, in view of the state of the Austrian Army, it was desirable that "two corps were sent soon, if possible at once." Meanwhile Falkenhayn, on the evening of the 9th, had telegraphed to Ludendorff: "I hope in a fortnight to have four active corps available for the East." Next morning, that is, the day on which the great attack on Ypres was to begin, the Commander-in-Chief East telegraphed to Falkenhayn at length, reporting that his offensive would begin that day—actually, it began the following day. Falkenhayn understood that he hoped to obtain "partial successes," whatever that might mean, which would not interfere with his own greater offensive fourteen days later. Falkenhayn now warned the Western Armies to consider the preparation of rearward positions and the pulling out of reserves, as it might be necessary to assume a defensive attitude, and shorten the front in order to send troops to the East; but the new positions were not to be so far back as to require a "great retirement" which might be construed into a defeat. Eventually, after the final defeat before Ypres all idea of giving up any ground voluntarily was abandoned.

No part of the front seemed to offer such hopes of early success as Ypres: Verdun had already been rejected, the Aisne and Argonne

had been tried. Time pressed, ammunition was running short, fresh troops were required, as the Reserve corps were exhausted, "their fighting spirit very depressed and their fighting strength low." The only reinforcements that were available were the 4th Division (from Sixth Army) and 9th Reserve (from Fifth Army); a composite division of the Guard was, however, organized in addition by Crown Prince Rupprecht. Arrangements were made for the close enveloping attack on Ypres on the 10th. As is well known, these attacks from north and south were not simultaneous. General von Plettenberg, commanding the Guard and 4th Divisions, was not ready on the 10th, and postponed the southern attack until next day. The history gives just eight and a half lines to the great German attack of the 11th of November. However, it completely failed. "The losses, partly in consequence of the enemy's counter-attacks, were great." Falkenhayn ordered the renewal of the attacks, and the narrative lays much greater stress on those of the 13th to the 18th, to which the British account gives small space, than to that of the decisive failure on the 11th.* On the 15th, the German Fourth Army, before Ypres, was compelled to report that, owing to casualties and increasing sickness, a further advance could only be made after the arrival of new troops. On the average, the divisions had only 2,000 rifles available. The total strength of the 16th Division is given as only 5,000. Both Army commanders concerned reported that their troops were at the end of their powers, and that it was impossible to carry out further attacks with exhausted troops. On the 18th, Falkenhayn ordered the Sixth Army to pull certain formations out of the line on the night of the 19th-20th for transport East, "without interfering with the continuation of the attack on Ypres." No formal order stopping the attack was issued, but this was the end.

The German casualties from the 10th to the 18th of November are given as, "approximately, 19,500 dead and wounded, 4,000 missing=23,500. This total seems hardly to account for the Imperial Chancellor's "perturbation about the enormous (*enorme*)

* The British official history, 1914, Vol. II, pp. 453-459, leaves no doubt, however, about the defeat of the German attacks:—13th: "counter-attacked . . . they turned before the Highlanders could reach them with the bayonet, leaving behind prisoners." 14th: "the second attack by the German Guard, though not invested with such dramatic interest as that on the 11th of November, or so well remembered, failed even more thoroughly and decisively." 15th-18th: "There was heavy fire from the enemy, and his infantry was seen massing from time to time; a determined attack (which failed) was made on Cavan's detachment and the 3rd Division on the 17th, and the much contested ruins of the stables of the Herenthage Château were recaptured by the enemy on the 18th. . . . After the 18th, the enemy's efforts seemed to relax, though shelling continued."

losses at Ypres," as recorded in the diary of Colonel-General von Plessen, the Kaiser's General A.D.C.*

Unlike the official monograph "Ypres," which claimed great numerical inferiority for the Germans and put the Allied divisions at forty, the official history admits that on the 18th of November there were between the Douve and the sea twenty-seven and a half German infantry divisions and one cavalry division, and twenty-two Allied divisions, with ten cavalry. On the actual fighting front from the Douve to Bixschoote, it ought to be stated, there were on the 10th and 11th of November twenty-three and a half German infantry and one cavalry division against eleven Allied divisions, with five cavalry. The history adds sadly, "During the heavy fighting on the right wing almost complete quiet reigned on the rest of the front."

Colonel-General von Plessen, who was with him during this period, living near Lille waiting for the victory, records on the 14th of November :

"His Majesty is very depressed. He is of the opinion that the attack on Ypres has gone amiss and failed, and with it the campaign. . . . To go from here without a decision in our favour is a moral defeat of the first class."

The situation as regards abandoning the attack in Flanders had meantime become complicated owing to the surprising success of Hindenburg's flank attack, although made with only three corps, in the battles of Wloclavec (11th-13th of November) and Kutno (13th-16th). These victories are no proof of great strategy or leadership ; for as in the Tannenberg campaign, the interception of the wireless messages of the Russian General Staff "gave the commander of the German Ninth Army a clear picture how the situation was regarded by the enemy, and what he intended to do." It was now too late for Falkenhayn to go East and lead the Russian offensive, as he had hoped. Matters had been taken out of his hands by fate. Hindenburg continued, however, to clamour for reinforcements, and, on the 18th, Falkenhayn replied to him by letter in which, after enumerating what he had given him—five cavalry divisions, three *Landwehr* regiments, thirty-six *Landsturm* battalions and 44,000 trained men—he said that his decision as regards

* On the British system of "accounting," which includes the lightly wounded, the German represents twice $19,500 + 4,000 = 43,000$.

According to a recently published Bavarian official book, "approximately" means that the losses of a division with the fewest casualties are worked out, and the figure is multiplied by the number of divisions engaged !

shifting forces from West to East " would be made easier if there were well-formed hopes that the arrival of new forces of the strength available in the circumstances would bring about a final decision in the East." What forces he could send would, he thought, merely drive the Russians back behind the Narev and Vistula line and force them to evacuate Galicia. This was certainly of political importance and worth trying to attain,

" But it would be of no value whatever if our opponents in the West should in the meantime have succeeded to any extent in driving back our forces there, or even merely compelled us to abandon the sea coast. For our most dangerous enemy is not in the East, but England, with whom the conspiracy against Germany stands and falls. We can only harm her if we keep our hold on the sea coast. Similarly, we can only hold France in check by maintaining our present position in the West intact. What unfavourable influence any, even the smallest, revival of the French hopes has is well shown by the French behaviour after the German retreat in September, which retreat must in the main be attributed to the weakening of the Western Army in favour of the Eastern Army."

Nevertheless, Falkenhayn concluded, in spite of all difficulties, reinforcements would be sent to the East: " they would not arrive simultaneously, but one after the other," and in such strength as circumstances permitted.

The history is contemptuous of Falkenhayn's change from his promise of ten days previous that not later than in a fortnight strong forces, five or six corps, would be sent as a body, and his renouncement of the initiative and offensive conduct of the two-front war. Nothing is said of the valiant fighting of the Allies at Ypres, which brought about the defeat of the German plan.

There is a table giving the times of the principal moves from West to East. There were transported between the 30th of October and the 6th of November (the dates are those of entraining; the railway journey averaged three days) the 5th, 6th and 9th Cavalry Divisions; between the 13th and 14th of November, the 4th and 2nd Cavalry Divisions; between the 20th and 25th of November, the II Corps; between the 22nd and 24th of November, the 48th Reserve Division; between the 24th and 28th of November, the 47th Reserve Division; between the 25th and 28th of November, the 26th Division; between the 29th and 30th of November, the 25th Reserve Division; between the 28th of November and the 6th of December, the heavy artillery of the Fourth and Fifth Armies; and between the 1st and 4th of December, the III Reserve Corps—a total of eight infantry and five cavalry divisions.

Hindenburg did not wait for these reinforcements, but, pushing on, tried between the 17th and 25th of November to envelope the Russians at Lodz, attacking their front and right with his extreme left swinging round behind their right. But he was not strong enough, and his left was cut off, and only escaped by breaking through northward. The front had to be reorganized, and when the reinforcements reached him the Russian line was also reorganized, and he could only push it back frontally.

There are chapters on East Prussia, where the Germans had to fall back to the line of the Lakes ; on the Austrian front, where some small successes were gained, and on the feeble December offensive of the Allies on the Arras-Messines front, which proved to the Germans that the strength of the reduced Western Army was sufficient to defend their positions in France without overstraining the troops, although they were by no means completely organized.

There is also a chapter on the commencement of trench warfare. The German principle of one good defence line was not abandoned intentionally, but because the troops, distributed in depth for open fighting, dug in where they stood. It was fully expected that open warfare would be resumed in two or three months. The infantry had still to rely mainly on its rifles, as the machine guns manufactured since outbreak of war only sufficed to arm the Reserve, *Landwehr* and new units.

The book closes with remarks on the "decisionless leading" of Falkenhayn. The author forgets that Germany had never since Frederick the Great's days won a victory without a two and a half to one numerical superiority. Fortunately Falkenhayn fell into disgrace ; for the Allies would hardly have won the war against so prudent a commander. He fully realized that Germany could not win after the failure of her march through Belgium. On the 18th of November, the day on which he wrote to Hindenburg telling him of the reinforcements he was sending, Falkenhayn informed the Imperial Chancellor that so long as France, Russia and Great Britain held together it was impossible to beat them sufficiently to obtain a "decent" peace ; and Germany would run the danger of being slowly exhausted. Either Russia or France must be detached. If peace with Russia could be obtained, then France would probably give in. "If Great Britain were left in alone, Falkenhayn hoped to be able to settle with her for good and all." He left it to Bethmann-Hollweg to choose the psychological moment. From the military standpoint, he would require nothing from Russia, only "a large war indemnity"—reparation experts might note this—but no

territory. Similarly, France should be given honourable terms : " a large indemnity was all that he wanted."

The Imperial Chancellor agreed that complete conquest and annihilation of the enemy appeared to be out of the question. Even if events did not take an unfavourable turn for the Central Powers, the only prospect was mutual exhaustion. " The Supreme Command was depressed by the extraordinary defensive power of the French, the difficult position at Ypres, and the temporary very painful lack of ammunition, and did not exhibit a decided confidence in victory." He agreed, therefore, to examine the chances of a separate peace with Russia, and communicated with the Foreign Minister, Zimmermann. On the 25th of November he wired to him : " Kaiser and General von Falkenhayn insistently wish for a separate peace with Russia." In an interview with the Imperial Chancellor on the 7th of December, Falkenhayn told him that the Army was a " broken tool," and they would be lucky if they managed to hold up both fronts. On the 17th of December, however, Bethmann-Hollweg was forced definitely to inform the Chief of the General Staff that his investigations showed that " there was no inclination whatever for peace in Russia." Thus it came about that the campaign of 1915 was directed to bring about not the decisive defeat of Russia, but a change of feeling which should incline her to peace. Falkenhayn's successors pursued the same object by less reputable means.

That the war might have been won by desisting in the attacks on Ypres in November, 1914, and sending four corps to Russia is one of the many flights into " what might have been " which disfigure the German official history. The compilers never consider that their opponents might also have acted differently in such a case. Not a division could be moved from the West to the East without immediate discovery. Suppose the Germans had stopped the battle of Ypres on the 4th of November. Even if the French and British had done nothing when they learned of the weakening of the German front, the Russians would have had plenty of notice of the arrival of the enemy's reinforcements, and would probably not have persisted in their advance, but would have retired as they did in December, when the German reinforcements did appear, and as they did in May, 1915. To drive them or to follow them far in midwinter would have spelt disaster. Falkenhayn did the best that could be done in difficult circumstances, and in the end it was the ' Easterners ' Hindenburg-Ludendorff who lost the war.

ONE HUNDRED PROBLEMS ON MECHANIZATION

By COLONEL J. F. C. FULLER, C.B.E., D.S.O.

PART II *

VIII. TACTICAL PROBLEMS (DEFENCE)

(47) *Choice of a defensive position.*—In future the choice of a defensive position will depend upon which arm the enemy sets the greatest value. Should he be well equipped with A.F.Vs., defensive positions will have to be selected with reference to anti-tank weapons. A good field of fire should be sought, so that the enemy's A.F.Vs. may be engaged at long range. If possible, an anti-tank obstacle should run immediately in front of the position, such as a stream, or sunken road. If this obstacle cannot be seen by the enemy, it will come as a surprise to him. Should such an obstacle not exist, then one immediately in rear of the defensive line should be sought, full use being made of woods and villages as anti-tank strong points.

(48) *General defence against A.F.Vs.*—Early information of the enemy's advance is of the first importance, and this should be obtained by aircraft and armoured cars. If the defensive line has no obstacle in front of it, or no good anti-tank locality in rear, it is useless packing it with riflemen. Infantry machine guns should be sufficient to keep back an infantry attack, and infantry anti-tank weapons to delay an enemy's tank attack. Artillery should be brought up as close to the infantry as possible, and tanks should be concentrated at some central point, or towards a flank, so that the enemy's A.F.Vs. may be counter-attacked in strength. Tanks should not be distributed for purely defensive operations.

(49) *Vulnerability of flanks and rear.*—Whilst fronts have become almost invulnerable to infantry attack, and may, if strongly reinforced with anti-tank weapons, become highly resistant to tank attack, it cannot be too strongly urged that flanks and rear are daily becoming more vulnerable. To guard against attacks from these quarters, it is important that observation posts should be thrown out on the

* The first part of this Article appeared in *The Army Quarterly*, October, 1929.

flanks of a defended line, and that the rear services and non-combatant troops should occupy anti-tank positions, such as woods, hilly country and villages.

(50) *Organization of the defence*.—Since fronts can be more readily attacked and more easily turned by A.F.Vs. than by infantry, greater depth of defence will have to be sought, and ample room behind the defended front must be legislated for, so that the reserves of the defending force have space to manœuvre in. Behind the defended front strong anti-tank points should be organized, for it is between these that manœuvres will take place. If these points abound, it will frequently be better to attack enemy A.F.Vs. after they have penetrated the defended front rather than before they have done so.

(51) *Infantry defence*.—Infantry defence will mainly depend upon the nature of the ground, the use of their anti-tank weapons, and the facility of close support by artillery. The anti-tank weapons should not normally be brought into action in the front line ; instead, they should be kept mobile, so that they may easily be moved towards any threatened point. In field warfare, especially when the enemy possesses A.F.Vs., static positions for anti-tank weapons should, when possible, be avoided.

(52) *Artillery defence* (see Problems 42 and 43).—Radical changes will have to be made in the present system of artillery defence when the enemy is strong in A.F.Vs. It is next to useless to bring the guns into covered positions at considerable distances from the infantry front, because this front is likely to be overrun before gun support can be made effective. Either the guns will have to be brought up to the front, which means they must be motorized and armoured, or else such infantry positions must be selected as will enable the guns to come into action immediately behind the front. Then, when attacked, the infantry will be able to fall back on the guns before they themselves are overrun by the enemy's A.F.Vs. From this it will be seen that once again the deciding factor is the nature of the ground.

(53) *Cavalry defence*.—In the future, infantry will normally take up offensive positions in areas unsuited for cavalry movement. The cavalry are likely to possess armoured cars, and may be equipped with anti-tank weapons. In this case they should either be held in reserve behind the infantry front, or moved out on the flank, or flanks, of the infantry line. If they are equipped with anti-tank weapons, these can be rapidly moved forward at short notice towards any point threatened, or attacked, by enemy A.F.Vs.

(54) *Air defence*.—In the defence, the main duty of aircraft is not to attack the enemy, but to give early notification of his movements. If the enemy is strong in A.F.Vs., it is of first importance that these be discovered and kept under constant observation, which means that relieving aeroplanes must definitely take over situations from those already out, the one out not coming home until it has been properly relieved. It is also important to know in what direction the enemy A.F.Vs. are moving, and where he intends to attack. Pilots and observers must, therefore, be trained to gauge his movements and probable intentions.

(55) *Tanks in defence* (see Problem 48).—Tanks are essentially offensive weapons. Nevertheless, occasions may occur, in broken country, when they can be used defensively. In such country they can lie up and await the enemy. Generally speaking, however, it is wrong to string out a line of tanks behind the defensive front. They should be kept concentrated opposite the enemy's most probable lines of advance, their rôle being to attack, or counter-attack, at short notice.

(56) *Armoured cars in defence*.—Armoured cars have two main duties to fulfil in the defence. The first is to gain contact with the enemy and keep him under observation. The second, to delay his advance by skirmishing along his front, round his flanks, and towards his rear. By so doing they will gain time for the troops they are supporting as well as disorganize the enemy's plan and formations.

(57) *Field fortifications*.—Anti-tank obstacles will become more and more important in the future. Wire entanglements in themselves are no obstacles to tanks, but they can be made formidable obstacles to infantry and tanks if they are combined with anti-tank mine fields. Normally, the ordinary field trench will be no obstacle. Trenches which are definite tank obstacles can always be dug, but as they will have to be wide and deep, time will limit their construction. Generally speaking, anti-tank strong points will prove better than long stretches of entrenchments; these strong points may be defended by mine fields or by trenches, and should be equipped with field guns and anti-tank weapons.

(58) *Defence of woods*.—Woods should be defended by infantry and guns as they constitute definite obstacles to hostile A.F.V. attack. Should tanks be allotted to support their garrisons, they should be so located that, when the enemy is held by infantry and artillery fire, they can attack him in flank.

(59) *Defence of rivers*.—Rivers form very definite A.F.V. obstacles, consequently their importance is likely to grow in defensive warfare. They should be defended mainly by machine-guns

supported by artillery, and when A.F.Vs. are allotted to assist in their defence, they should be kept concentrated in such positions as will enable them to counter-attack the enemy directly he has effected a crossing. They should not be split up into small packets to watch bridges, fords, etc. When such operations are required, and the enemy is known to possess A.F.Vs., anti-tank weapons should be used for this purpose.

(60) *Defence of villages*.—Generally speaking, villages are unsuitable localities for A.F.Vs. to fight in, because A.F.Vs. are definitely tied down to streets and roads. They should be kept either in a central position in the village itself (if the village is a large one) or in rear, or on the flanks, of the village, hidden away from observation, and in such places from which they can attack, or counter-attack, the enemy in flank when held by the fire of the garrison.

(61) *Immediate counter-attack*.—Defensive positions and areas should be organized so that immediate counter-attacks can be delivered from them. For this purpose tanks are of great value. To enable them to operate quickly, the defended area, and the ground immediately in front of it, should be divided up into compartments, or squares, each given a number, or letter. Should the enemy break into one or more of these compartments, all that will be necessary is to order the tank commander to deliver an immediate counter-attack in the compartments concerned. So far as it is possible, each of these compartments should be reconnoitred by the tank commander immediately after the defensive position is decided upon.

(62) *Deliberate counter-attack*.—The deliberate counter-attack is nothing more than an attack, for it is a carefully prepared operation. In such attacks A.F.Vs. should be allotted according to the nature of ground, the infantry being prepared to advance immediately the enemy has been attacked by tanks in order to make good the area recovered. To disorganize the enemy, occasions may offer when armoured car attacks on the enemy's flanks can precede, or accompany, the deliberate counter-attack carried out by the tanks.

(63) *Retirements* (see Problem 38).—In retirements, especially in face of an enemy equipped with A.F.Vs., care must be taken not to demoralize the infantry by a rapid and unexpected retirement of the tanks cooperating with them. If infantry see tanks retiring, especially if they know that the enemy possesses these machines, they are likely to abandon their position and retire also. Tanks should not retire until the infantry have fallen back to a position where they will find another echelon of tanks to support them. If this is done, confusion and loss of morale are unlikely to take place.

IX. TACTICAL PROBLEMS (ATTACK)

(64) *Controlling factors*.—In the attack the controlling factors are weapons, ground and time. If both sides are strong in A.F.Vs., and if the enemy's position is known, the whole theory of the attack should be based on a careful study of the ground with reference to weapons, and the time it will take to move over the ground. If the ground is suitable for A.F.V. movement on both sides, correct timing of movements becomes the decisive factor ; consequently, elaborate orders will have to be avoided, and the movements themselves must be extremely simple. It should be remembered that for a considerable time to come command of A.F.Vs., once they are launched, will remain a difficult problem.

(65) *Decisive point of attack*.—The true decisive point of attack has always been the rear of an army, but, in the past, it has been extremely difficult to strike at the enemy's rear without uncovering one's own line of communications. As mechanized forces possess the power of moving rapidly across country, it is easier for them to change their line of communications at short notice ; consequently they will frequently be able to attack, or threaten, the enemy's rear. When employed on such operations, it is necessary that the enemy be first held, or that his power of mobility be reduced so that his freedom of movement is restricted ; unless this is done, rear attacks are likely to prove wasteful of energy. In other words, the enemy must be first held, and it is from this holding operation that the rear attack should be developed.

(66) *Value of reserves*.—Increased mobility carries with it the power of effecting innumerable surprises, and the more the unexpected becomes possible the stronger must be the reserves. One of the great difficulties in the future will be to gauge the enemy's intentions, also it will frequently be most difficult to fix him in any definite locality ; consequently, unless strong reserves are kept in hand, it will be impossible to meet unexpected situations.

(67) *Encounter battle*.—Encounter battles are likely to be more frequent on account of the mobility of mechanized forces. A war is likely to open with a rapid advance towards the enemy's frontier in order to gain tactical points before the enemy can occupy them. Encounter battles, especially during the opening phases of a campaign, will probably be carried out by smaller forces than in the past, and will take the form of a series of advanced-guard actions behind which motorized infantry and machine guns are brought forward.

These infantry will have to be strongly supported by artillery and anti-tank weapons in order that they may be able to protect themselves against A.F.V. attack.

(68) *Deliberate attack*.—The deliberate attack presupposes that the enemy has been thrown on the defensive, and is holding a position, or an area, in order to deny it to his antagonist. As mobility increases, deliberate attacks are likely to become less frequent, except in areas which are unsuited to A.F.V. operations. When deliberate attacks are made, their object will generally be to hold the enemy rather than to smash him, disruption of the enemy's forces being gained by a mobile attack against one or both of his flanks.

(69) *Mosquito attack*.—In the past, guerilla warfare was one of the most difficult problems to solve. In recent years it has been largely restricted by the laws of war, but in the future when armies are equipped with large numbers of armoured cars, and can draw from civil resources any number of motor-cars which can be manned by soldiers, this form of war (on a mechanized footing) is likely to recur. Few things will be more disconcerting to an army, whether mechanized or on foot, than constantly to be attacked by motorized guerillas. These attacks are not likely to aim at decisive results, but rather to wear down the enemy and keep him under constant observation.

(70) *Pursuit*.—Whilst in recent warfare the pursuit has been a difficult operation on account of the lack of power of cavalry to close with the enemy, in the future it is likely to be revived in an intense form. Armoured cars, tanks, armed motor-cars and embussed infantry will take part, the pursuit being pushed not only directly against the enemy as he retires, but against and round his flanks, to block his rear.

(71) *Holding positions*.—A considerable amount of misapprehension exists as regards the power of A.F.Vs. to hold ground. If by holding is meant actual occupation of a position, then armoured machines, generally speaking, are not suited for this work. Ground, however, may be held indirectly, by which is meant that armoured machines can take up positions from which they can attack an enemy in front, flank or rear, should he advance to seize the locality in question. Holding, in the future, is likely to become a frequent operation by A.F.Vs., but the actual occupation of a position, or an area, is better carried out by the older arms.

(72) *Cavalry and A.F.Vs.*—In the future armoured cars and tanks will undoubtedly work with cavalry, and, consequently, economy of force between these arms will depend on a correct allocation of duties according to the limitations of the arms. At present, except in open

country, armoured cars cannot operate off the roads, therefore their attacks will have to be made along the roads, and, normally, will be of an outflanking nature, for it will be dangerous for them to attack frontally. Cavalry, as far as possible, should work in between the roads, and should be supported by tanks held in reserve until the enemy is met. Once the enemy is encountered, and is engaged on his flanks by the armoured cars, cavalry should be prepared either to fall back, leaving it to their supporting tanks to attack, or should engage such enemy anti-tank weapons as have been located.

(73) *Armoured cars and light and medium tanks.*—When these three arms are combined, their attack operations should coincide closely with those outlined in Problem 72 ; the light tanks taking the place of the cavalry. The main difference in this operation is that the light tanks will be able to combine their action more closely with the heavier machines, their main duty being to protect them against anti-tank weapons.

(74) *Light tanks and infantry* (see Problem 13).—The main infantry attack problem is the advance over the last 800 yards. Normally, infantry are able to approach to within this distance of their enemy, but from this point onwards the enemy's rifle and machine-gun fire is generally so heavy as to preclude further advance. To-day artillery is expected to provide sufficient support to enable the infantry to move forward, but as in the future machine guns will increase in number, this solution is likely to become less and less applicable. What the infantry require is a true close-support weapon, that is a light tank equipped either with a machine gun or an anti-tank weapon, which will, directly the infantry can no longer advance, move forward and deal with the hostile machine guns. This weapon should form part of every infantry battalion.

(75) *Anti-tank defences in attack.*—In the attack there are two anti-tank problems ; the first, how to protect tanks against hostile anti-tank fire ; and the second, how to protect infantry and artillery against tank attack. As regards the first, see Problem 76. As regards the second, protection must be sought not only through infantry anti-tank weapons and artillery, but by always keeping a number of tanks in reserve ready to move forward and counter-attack enemy A.F.Vs. The tank is the most effective anti-tank weapon ; this should never be forgotten.

(76) *Artillery and tanks.*—The gun is essentially a protective weapon, and when it is combined with the tank its object is to protect this machine and to defeat its like. Both these operations can be carried out with two forms of projectiles, namely, armour-piercing

and smoke shell. For protection to be effective, there can be little doubt that the artillery of the future, called upon to operate with tanks, will be of a self-propelled and armoured type.

(77) *Tanks and aeroplanes.*—The object of the aeroplane when combined with tank forces in the attack is to protect these machines. This is done by locating the enemy, maintaining contact with him, watching his movements, and reporting them rapidly to the tank forces. Further, it is done by a careful reconnaissance of ground, especially of all localities in which hostile artillery and anti-tank weapons are likely to be found. Unless the enemy and the ground are carefully watched by aircraft, tanks will be denied much of their power in the attack.

(78) *Tanks against guns and anti-tank weapons.*—When tanks are compelled to attack artillery, it should be remembered that the most dangerous range is from 1,000 to 800 yards. When possible, the tank should attempt to attack guns in flank or rear; but when this is impossible, frontal attacks should be made in an oblique direction, that is to say, the tanks, in place of moving directly on the guns, should move diagonally across their front, compelling them constantly to traverse. If this is done within 500 yards of the artillery position, in most cases the guns will be defeated. The problem of protection against smaller anti-tank weapons is more difficult, because these weapons will be hidden and will open surprise fire on the attacking machines. The light tank is the most suitable weapon to engage them, and all medium and heavy tank attacks should be preceded and flanked by a screen of these light machines.

(79) *Tank against tank.*—The attack of tank against tank is a problem concerning which very little is known. It would appear that normally a *mélée* will take place in which it may frequently be difficult to distinguish friend from foe. If light tanks are used to move ahead of the medium and heavy machines, far greater order will be maintained, as the formations of the medium and heavy tanks are not so likely to be broken up. It should be remembered that when tank meets tank, machines should manœuvre in such a manner that full use is made of the accidents of ground, of the wind, weather and the sun. The whole problem is much like two fleets meeting at sea.

(80) *Command of A.F.Vs. in the attack* (see Problem 10).—The great difficulty in commanding A.F.Vs. in the attack is the maintenance of control. In the future radio-telephony may assist in solving this problem. Nevertheless, jamming is likely to be frequent, consequently this form of communication cannot be solely relied upon. To control A.F.Vs. in the attack the plan of

operations must be as simple as possible, and it must be known in detail by all taking part. Further than this, alternative situations should be considered. Advances should be made definitely by bounds, the A.F.Vs. rallying after each bound. Other troops must realize that control will certainly be lost if they are continually calling upon A.F.Vs. to carry out minor and local operations.

(81) *Attack on villages*.—A village is not a suitable A.F.V. objective because armoured machines are largely restricted to the roads, and can be put out of action by bombs thrown from the upper storeys of houses. In these operations A.F.Vs. should be used to work round the flanks of the village, and cut its garrison's line of communications. If armoured machines are used frontally against the village itself, they should do so under infantry protection, the infantry being ready, at a moment's notice, to open fire on hostile anti-tank weapons, and machine gun barrages should be placed on all positions where these weapons are likely to be sited.

(82) *Attack on woods*.—A wood is not a suitable objective for medium and heavy tanks ; but, if it is clear of undergrowth and brushwood, light tanks may frequently be able to operate with advantage. When, however, A.F.Vs. are unable to proceed through a wood except by the roads, tracks and rides, riflemen should precede the machines under cover of the wood on each flank of the track, etc., and should be ready to open on any anti-tank weapons before the A.F.Vs. can be fired upon. The operation here suggested is similar to that of an advance in bush warfare. Again, A.F.Vs. should, when possible, operate against the flanks and rear of the wood.

(83) *Attack on rivers*.—An unfordable river is a definite tank obstacle, consequently, when rivers have to be crossed, armoured machines are at a disadvantage when compared to infantry. The first problem is to form a small infantry bridgehead, the next to raft a number of light tanks over ; these, on landing, should at once increase the size of the bridgehead by operating outwardly against the enemy holding the bank. Under cover of this protection bridges will then have to be built for the heavier machines. Though a river is a definite tank obstacle, it should not be forgotten that as A.F.Vs. possess a high mobility, many more crossing places may be threatened than has been the case in the past. Feints are therefore likely to play an important part in future river attacks.

(84) *Reserve of A.F.Vs. in the attack* (see Problem 66).—When attacks are made with A.F.Vs. against an enemy possessing these machines, it cannot be too often repeated that, more and more, will it become vital to hold strong reserves of A.F.Vs. in hand, especially

at the opening of an attack. The more mobile armies become the more difficult will they be to control, and if control is lost, command is lost with it, and an army is rapidly reduced to a mob, whether it consists of infantry, tanks, or any other arm.

X. TACTICAL PROBLEMS (POSITION WARFARE).

(85) *Changed nature of position warfare* (see Problem 6).—As armies become more and more mechanized, the nature of position warfare will change. In the past it has generally consisted of lines of field entrenchments, but in the future it is more likely to consist in fortified areas, fortifications being based on anti-tank weapons and obstacles. These obstacles fall into two categories, namely, natural and artificial obstacles. The first consists of hills, woods, river areas, canals, villages, etc., and the second of fortifications constructed where no natural obstacles exist. The storming of these obstacles will normally have to be carried out by infantry supported by siege artillery and aircraft, because A.F.Vs. are not at present suited for such operations.

(86) *Attack on a trench line*.—Attacks on a well-constructed trench system are likely to be carried out much on the same lines as those devised during the recent war. Entanglements are no obstacles to tanks, and, if trenches are wide, medium tanks should normally be able to cross them by means of cribs or fascines. It is important to divide the enemy's entrenched position into a number of tank-attack areas, and to allot to each of these areas a definite number of tanks and a definite number of infantry. When once the tanks have crushed down lanes through the enemy's wire, the infantry should follow ; and immediately the tank objectives have been gained the infantry should occupy them, and the tanks should rally in reserve ready to support the infantry if they are attacked by hostile armoured machines.

(87) *Formation of attack*.—In an attack by tanks on entrenchments the normal formation is as follows :—An advanced guard of machines preceding the main force to be divided into a centre and two wings, the centre moving directly forward over the enemy's wire and trenches, and the two wings moving outwards to the right and left of the centre in order to increase the gap and allow the infantry to move forward on a broad front. The power of creating offensive flanks is one of the great assets of a tank attack against an entrenched position.

XI. TACTICS (NIGHT OPERATIONS).

(88) *Work of A.F.Vs. in night operations.*—The moral effect of A.F.Vs. at night is very great, though their material effect may frequently be negligible. Troops at rest will be kept in a state of anxiety if they know that hostile tanks, etc., are in their neighbourhood. Feints and demonstrations as well as definite attacks carried out by A.F.Vs. at night will be of great assistance to dawn attacks, as they will exhaust the enemy by keeping him in a constant state of suspense. Besides these operations, when A.F.Vs. are confronted by strong anti-tank defences, they may frequently be able to break through during night-time.

(89) *Approaches and night marches.*—When A.F.Vs. are required to carry out night approaches and night marches, the success of these operations will depend almost entirely on careful reconnaissance. Air photographs are of great value in order to locate natural features which, if the night is not too dark, may be used as guiding points during the advance. Possibly, coloured lights dropped from aeroplanes, and coloured shells fired by guns, may, in the future, prove useful to guide tanks on to their objectives. The noise of A.F.Vs. at night is normally deceptive; it is difficult to follow, for the slightest current of air will alter its direction. When using A.F.Vs. in these operations, an organized advanced guard of armoured cars, or motor-cars, should be employed, one of their duties being to see that A.F.Vs. do not lose direction.

(90) *Attack by A.F.Vs.*—When A.F.Vs. are required to attack during hours of darkness, the plan of operation should be extremely simple, objectives easy to find being selected, and great care exercised in seeing that, if infantry cooperate, their objectives do not coincide with those allotted to the tanks. As it is difficult to distinguish friend from foe, the cooperating infantry should be marked by a distinct and easily-seen distinguishing sign. After the objective has been taken, the A.F.Vs. should at once rally and come into anti-tank reserve.

XII. TACTICS (SEMI-CIVILIZED WARFARE).

(91) *General characteristics.*—In semi-civilized warfare the main difficulty is not the armament of the enemy, who, normally, is badly armed, but the nature of the country and the superior mobility semi-civilized fighters possess. Further, the outstanding difficulty is

supply, which has to be carefully protected. The great advantages of A.F.Vs. in uncivilized warfare are that they reduce space by economizing time, that they are invulnerable to the enemy, and that M.T. vehicles can carry greater quantities of supplies than horse-drawn ones, consequently the number of vehicles and depôts on the line of communications can be reduced.

(92) *Desert warfare*.—The advantages possessed by A.F.Vs. and M.T. in desert warfare are that great distances can be covered in a comparatively short time, and that greater supplies of water can be carried than by a marching column. The disadvantages are—the effect of heat on the men, and of sand on machines. The first is not so great as it is supposed to be, and the second can be largely overcome if the track components require little lubrication. In desert warfare, generally, the type of enemy met with is the mounted man. In the past his mobility has rendered it most difficult to bring him to battle. This difficulty should be largely overcome by the use of armoured cars and motorized infantry.

(93) *Mountain warfare—lines of communication*.—One of the greatest difficulties in mountain warfare is the maintenance of an adequate system of supply, which depends upon the protection of the line of communications which usually follows a valley. To protect this line, piquetting of the heights has to be resorted to, and this operation absorbs large numbers of troops. A.F.Vs. and M.T. should be able to reduce piquetting to a very considerable extent. Not only can the roads be defended by armoured cars and tanks, but columns of transport can be rapidly moved from the base to the forward zone and then withdrawn. This forward zone will receive its supplies in far greater bulk than in the past, and consequently the L. of C. will not have to be so continuously piquetted.

(94) *Attack on mountain villages*.—In mountain warfare the villages are usually situated in the valleys and are normally fortified, their fortifications consisting of mud towers and walls. When infantry are employed to attack these villages, the great difficulty is to dislodge the enemy riflemen from their fortifications. Tanks are particularly well suited for this operation. Being invulnerable to the enemy's bullets, they can approach close to the towers, etc., and either fire directly through the loop-holes, or deposit explosives at their foot, or generate a smoke cloud under the cover of which infantry can approach.

(95) *Attack along nullahs*.—In mountain warfare, attacks and advances usually follow the bed of a river or a nullah. The difficulty in these operations consists in the enemy holding the gorges

which frequently can only be carried by a frontal attack. With an uncivilized enemy, the known characteristic is his fear of being attacked in rear. As tanks are invulnerable to rifle fire, many of these gorges can be rapidly traversed by these machines which, getting behind the enemy, will normally force him to evacuate his position, and so let the attacking infantry through. Light tanks should be particularly useful for this kind of work, especially if they are armed with a small howitzer or mortar.

XIII. USE OF CIVIL MOTOR VEHICLES.

(96) *General influence of civil motor vehicles.*—Omitting all A.F.Vs. from consideration, the enormous increase in motor vehicles of all types will rapidly change existing tactics. Movements, especially of marching troops, will become far more rapid both in strategical and tactical operations. Outflanking movements of infantry will become more frequent, and concentrations will be effected in a shorter time. Further than this, the power of small forces will be greatly increased both for holding operations and attacks. If A.F.Vs. are now inserted into the picture it will be realized that a far closer cooperation can be effected between them and motorized troops than with marching ones.

(97) *Difficulties in the use of civil vehicles.*—The main difficulties in the use of civil motor vehicles for military operations are as follows :—

- (a) The drivers will probably be undisciplined, and therefore difficult to manage.
- (b) Road control will become more and more important, and in all probability traffic-control officers and police will have to be mounted on motor-bicycles.
- (c) Infantry transport will have to be motorized.

Though there is no difficulty whatever in moving large forces of infantry by means of civil M.T. vehicles, unless their first-line transport is motorized these movements cannot be properly coordinated. To make full use of civil M.T. in war, it is essential that first-line transport is placed on a motorized footing.

(98) *Reconnaissances and feints.*—The use of civil motor-cars, motor-bicycles, etc., will prove invaluable for reconnaissance purposes in war. Further than this, the power of effecting feints by means of bus columns will be largely increased. These columns may sometimes be sent forward empty, or only partially filled, in order to confuse the enemy. It will be seen from this that any

increase in existing mobility carries with it enormous power of surprise and bewilderment. If the enemy can be thrown into a state of doubt, for the time being his plan of action is unhinged. This will be one of the most important tactical uses of civil M.T. in war.

XIV. INTERNAL SECURITY

(99) *Use of A.F.Vs.*—Tanks and armoured cars have already proved their usefulness in maintaining law and order in disturbed cities and areas. Rapidity of movement enables these machines to arrive quickly in the disaffected locality. Tanks can surmount most barricades constructed by rioters. When armoured cars are used to move through mobs of people, a good plan is to electrify them. This can easily be done by removing one of the plugs and connecting it to the armour; the crew, being isolated by the rubber tyres, is immune, but any man touching the car from outside will receive an electric shock. Obviously, this is an imperfect method of electrification. To carry it out properly, and without detracting from the power of the engine, a small dynamo should be placed for this purpose in the machine.

XV. LANDING OPERATIONS

(100) *Floating A.F.Vs.*—The majority of the wars in which the British Army takes part, whether great or small, open with a landing operation. In these operations, especially when they are opposed, the great difficulty is to span the gap between the ship and the shore. To-day landing operations are very similar to those which took place hundreds of years ago, the men being carried in open boats. If the enemy is equipped with machine-guns, these landings will either fail or prove extremely costly. The solution of this problem is a floating A.F.V. which can be launched from the ship and propel itself ashore. Once ashore it can engage the enemy's machine-guns, and pushing them away, form a bridgehead under cover of which infantry, etc., can be landed. The invention of the floating A.F.V. is the only practical solution to this problem.

EXAMPLES OF WELLINGTON'S STRATEGY

THE VITORIA CAMPAIGN, 1813

BY MAJOR-GENERAL SIR W. D. BIRD, K.B.E., C.B., C.M.G., D.S.O.

PART II *

(With Three Maps)

As has been stated Wellington, who had now manœuvred the French from the Douro and united his army on its northern bank, expected that a battle would be fought for the possession of Valladolid. When it was, however, ascertained (Map 3) that the French instead of preparing to fight were retreating by every road Wellington decided to press them hard, and the Allies consequently swept forward on the 4th of June in three main columns, using by-roads, not the main Valladolid-Burgos road. Of these columns the right, nearly 40,000 strong, of the 6th and 7th Divisions, followed by the 2nd Division, Silveira's Portuguese Division, and Morillo's Spanish Division, moved towards Torrelobaton, in front of it being Grant's Cavalry Brigade, and on its right Fane's, Alten's, and Long's Cavalry Brigades, and Sanchez's Horsemen on the extreme right flank. The centre, about 20,000 men, consisting of the Light, 3rd and 4th Divisions, and D'Urban's and Ponsonby's Cavalry Brigades, marched by La Mota on Castromonte, followed by the Reserve of Artillery, three batteries. The left, Anson's and Bock's Cavalry Brigades, the 1st and 5th Divisions, and Pack's and Bradford's Portuguese Brigades, about 17,000 fighting men, advanced towards Medina de Rio Seco. The 10,000 Galicians, who were also converging on Medina, were ordered to hold back, apparently because they were short of ammunition. The army, therefore, which was marching on a frontage of about 15 miles, would be in compact order and ready for battle; and it would be moving not directly after the enemy's main body, which seemed

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to be on the Burgos road, but by tracks running parallel to it. If battle came it could therefore be fought advantageously by the Allies; for while they would be covering their communications along and across the Douro with Portugal, the enemy's principal line of communication, the Valladolid-Burgos road, would be at an acute angle to their front, so that if the French were defeated they would probably be driven either away from this road or into the Pisuerga or Arlanzon. Wellington was also keeping his own powerful right wing out of easy reach of troops that might be concentrated on the main road.

There was no resistance, apparently in part because the French had no organized transport. With some modifications in the composition of the columns the advance was therefore continued in cool weather until the 12th of June, at first over a good open corn-country, then to chalk downs like those of Wiltshire. On the 12th the left (1st and 5th Divisions, Bradford's and Pack's Portuguese Brigades, Giron's two Galician Divisions, and Anson's and Bock's Cavalry Brigades) under Graham, which was well in front of the remainder, halted at and near Sotestruco. Of the groups in the centre (there were now two) the 3rd and 4th Divisions remained at Castrogerez with D'Urban's Brigade, and Hill's Household Cavalry Brigade which had now come up to the front; but the 6th and 7th Divisions, which had formed part of the central groups, moved towards the right, as did the Light Division also. At the same time the right under Hill, consisting of the 2nd Division, Silveira's Portuguese Division, Morillo's Spanish Division, and Alten's, Fane's, Grant's and Long's Cavalry Brigades, advanced towards the French who were now in some force behind the Hormaza.

The enemy were quickly dislodged and retired towards Burgos, and the castle of Burgos, which had resisted the efforts of the Allies to capture it in 1812, was partly blown up as the French left the town. The incident was of great importance, for the attempt to destroy the castle was an indication of the enemy's state of mind, a symptom that they despaired of maintaining themselves in the area between the Douro and Ebro. Even before this Wellington, on the 10th of June, had ordered the supply ships to proceed from Corunna to Santander. If the latter port were still held by the French the commander of the convoy was to wait off it until the operations of the Allies obliged the French to retire; but if the enemy had gone the convoy was to enter the harbour. It seems that the attempted destruction of the castle of Burgos

confirmed Wellington in his intention of pressing on until he could force the French either to leave Spain, or to fight a battle in circumstances favourable to the Allies; a resolve that was made although his staff apparently wished him to halt on the Ebro and wait for news from Central Europe. And, even admitting that Wellington possessed all the advantages that sea power confers, the decision was extraordinarily bold; for in the first place no one can accurately forecast the issue of a battle, nor can any man foretell the direction in which troops, if defeated, will be able to retreat; and the British line of communication to Portugal was now long. And in the second place Napoleon had already driven back the Allies in Germany, it was not impossible that the winning of a great victory over them might cause the coalition to collapse and Austria to incline to the side of the French; and then if peace resulted Napoleon would again be free to concentrate force in Spain. But Wellington rightly determined to try to influence events in Central Europe while he had an opportunity of doing so, by either winning a big battle in Spain, or obliging the French to leave it without fighting; and he was not disposed tamely to wait for something to happen. As he subsequently said, "I thought that if I could not hustle them out of Spain before they were reinforced I should not be able to hold my position when they should be. . . ."

The allied army therefore went forward, moving on tracks said by the Spaniards to be impracticable, and by the British to have been worse than the worst in Ireland, first in the direction where the Ebro, here as wide as the Thames at Maidenhead and flowing in a valley like that of the Wye below Monmouth, could probably be crossed without opposition. Then after passing over the river the troops, who seem to have been on short rations, toiled over the mountains, directing their march so as both to cover the new base at Santander and to make a movement dangerous to the enemy towards the road from Vitoria to Bayonne, the best of those in this part of Spain. Giron's Galicians advanced in consequence on the 14th of June towards Valmaceda by Rocamonde and Quintanilla de Pienza, being apparently kept in front so as to persuade the French as long as possible that nothing more than an advance by Spanish guerrillas unsupported by British troops was being made. Graham's column, 17,000 strong (1st and 5th Divisions, the two Portuguese Brigades, and Anson's and Bock's Cavalry Brigades), marched on St. Martin de Lines, and then eastwards, Longa's guerrillas, 3,000 effectives, who joined the army

at Medina de Pomar, being placed in front of the column for the same reason as Giron's troops had been sent eastwards ; the 3rd and 7th Divisions, the Household Cavalry, and the Reserve Artillery, 16,000 men, moved by Villarcayo on Quincoces ; the 4th and Light Divisions, and Grant's, Ponsonby's, and D'Urban's Cavalry Brigades, 17,000 in all, advanced by Medina de Pomar also on Quincoces ; and the right, the 2nd Division, Morillo's and Silveira's Divisions, and Alten's, Long's and Fane's Cavalry Brigades, 22,000 fighting men, marched after the 4th and Light Divisions on La Cerca covering the turning movement of the others. Practically the whole army, therefore, was, in the end, for two days advancing over what is described as a fine country in one long column on the road leading from Medina de Pomar to Miranda de Ebro by Osma. The 6th Division, 7,000 strong, was, however, left behind at Medina de Pomar so as both to protect the transport, which had now apparently strung out over a large area, and to open up communication with Santander.

At this juncture Wellington believed that the French might be going to move by Haro and Logrono down the Ebro and then north-eastwards to Pampeluna, but he was also aware that there were French troops at Frias and Espejo. On the 16th and 17th of June it was, however, known that the main body of the French army was at Pancorbo, and that there was one division and some cavalry at Frias and two or more divisions at Espejo. Although news had now reached the Allies of Napoleon's victory on the 22nd of May at Bautzen in Silesia over the Russians and Prussians, and of their subsequent retreat into Austrian territory in Bohemia, and that an armistice was about to be concluded in Central Europe, Wellington's troops still advanced on the 18th of June. For the Galicians marched towards Valmaceda so as to threaten both Bilbao and the French garrisons in its vicinity, and the rest moved generally eastwards towards the enemy. Fighting consequently took place on the rugged hills near Osma and St. Millan with the French groups that had been at Frias and Espejo, and the result of the actions was that the French fell back behind the river Bayas. The French rearguard was driven from this line on the 19th in rainy weather on to the main body, which, according to Wellington's information, was marching through the defile between Pancorbo and Vitoria. But he was also aware that there was a force under General Foy near Bilbao, and another under General Clausel, of 10,000 or 12,000 men as he then thought, near Logrono ; and he hastened the march of his rearward troops accordingly.

Wellington was now in a strategical dilemma. On the one hand, if he pressed forward with the force that actually was under his hand the French army could not be joined by the troops under Clausel, and might be caught in the act of moving through the defile in the rough hills between Pancorbo and Puebla and forced to fight at a disadvantage, although the flanks of the pass at Pancorbo had been fortified and there was a fort at Pancorbo itself. On the other hand, his own army was not well closed up and only about half of it could come into action forthwith, and if this half were repulsed the fruits of his strategical movements would to some extent be lost. Further, even if the Allies were successful in the battle they might not be able fully to exploit a victory, and in these circumstances the action would be indecisive. Moreover the French would still be at a disadvantage if they stood to fight at any point to the south of Vitoria ; for Wellington's army was now so placed that if the enemy were defeated they might at best be surrounded, and at worst they might be driven away from the main road leading from Vitoria to Bayonne, their best line of retreat. And if the Allies were repulsed in a battle near Vitoria, but not routed, their new base at Santander would enable them still to make a stand in areas on the flank of the principal lines of movement from Southern France into Spain. So that the French could not again advance into Spain until the Allies had either been driven off, or unless they were contained by a force fully adequate to hold them if they made an attack.

Wellington did not push the French hard, and, after the fighting had ended, he was able to see from the high ground near Espejo what seemed to be the whole of the enemy's army, quite 60,000 strong, in the plain between Puebla and Vitoria. It was unlikely that the French, who appeared to have concentrated a large part of their forces, would again retreat without fighting, a battle therefore was probably imminent. True to his policy Wellington now decided to prepare to fight a battle ; and the movements ordered for the 20th of June were calculated, therefore, both to close up the columns, to bring the bulk of the troops into a more concentrated situation, and to move Giron's force and Graham's column to localities where they could directly cover Santander and at the same time be well placed to outflank the French army. Giron's 10,000 Spaniards, who were joined by Porlier's guerrillas, 3,000 strong, went, therefore, towards Orduna, but they were subsequently told to advance to Murguia as quickly as possible ; Graham's column, the 1st and 5th Divisions, Pack's and Bradford's Portuguese

Brigades, and Anson's and Bock's Cavalry Brigades, about 17,000 fighting men, marched by cross-country tracks over hills like those of Dartmoor for 6 or 8 miles from Ando towards Murguia on the road from Orduna to Vitoria. Longa's 3,000 guerrillas were still kept in front of Graham's force, and Wellington's orders to Graham were to endure every extremity rather than show one English soldier. The 3rd and 7th Divisions, about 14,000 in all, advanced to Zuazo and Apricano on the Bayas ; the 4th and Light Divisions, the Household Cavalry Brigade, and Grant's, Ponsonby's, and D'Urban's Cavalry Brigades, 17,000 troops, and the three batteries of Reserve Artillery, closed up to Subijana Morales, the Light Division being to the south of it ; and on the right the 2nd Division, Morillo's Spaniards, Silveira's Portuguese, 22,000 in all, went from Espejo to Pobes, already held by Alten's Cavalry Brigade, and by Fane's Cavalry Brigade which came there from Puente Lara.

The army numbering, without Giron's force, about 75,000 fighting men with 90 guns, was therefore placed on a frontage of from 12 to 15 miles, but Graham's column was separated from the centre by half a dozen miles as the crow flies of rugged country. And since the French were standing on the chord of the arc covered by the British, their front protected by a stream, the Zadora, not easy to cross owing to the steepness of the banks, and since Graham's column was in a position from which it could threaten the road from Vitoria to France by Tolosa, Wellington cannot be accused of lack of boldness ; for those were days when a battle rarely lasted more than seven or eight hours, and could be lost or won in perhaps an hour.

As every one knows the art of war lies, however, largely in acting according to circumstances, proceeding with caution when care is necessary, taking liberties when liberties are desirable, and incurring risks when the military or political situation demands it. Wellington, as it seems, was particularly desirous of gaining such a victory as would influence the course of events in Central Europe, and by this time he had seen that the report on the characters of Joseph and Jourdan was not inaccurate, and that they were men who were more inclined to take tentative than resolute action. It was not probable, then, that they would concentrate force against Graham's column ; and even if they did so the chances were that it would only be driven back, for the French were not likely to be so powerfully handled as to destroy the column before Wellington's other troops could intervene. On the other hand, it was probable

that victory in the battle would be won and that if gained it would be decisive.

The 20th of June was spent by the Allies in getting into their positions and in reconnoitring those of the enemy, and the battle of Vitoria was fought on the 21st. And although Graham's column did not act as vigorously as was usual with troops under his command, the Allies gained a complete victory; for the French, who lost about 7,000 killed and wounded and 2,000 prisoners, were obliged to abandon all but two of their guns and the whole of the transport that was with the army, and were also forced to retreat at nightfall on Pampeluna.

It is often more difficult to profit by a victory than to win it, for the problems that must be solved for the improvement of success are at times, as happened in 1813, less definite than those of the battlefield.

It seems that, on the 22nd of June, Wellington believed that King Joseph's force had been composed of the whole of the French armies of the South and Centre, and four divisions and all the cavalry of the Army of Portugal and also some of the troops of the Army of the North; and he rightly thought that the whole of the French artillery, except two guns, had been captured, and that "all their ammunition and baggage, and everything they had, were taken close to Vitoria." He knew that Foy's division of the Army of Portugal was near Bilbao, where there was a garrison, and that garrisons held other places on the coast near it; and he knew, in addition, that certain forts were occupied by the French in the pass followed by the main road over the mountains that run westwards in the space between Vitoria and Mondragon. He had heard that a big convoy had been sent from Vitoria to France by this road on the 20th of June—actually two were despatched, one on the 20th, another escorted by a division early on the 21st; he thought that Clausel was near Logrono with a couple of divisions; and he was aware that Murray, who had been delayed by the late arrival of the 3rd Spanish army, had sailed from Alicante at the end of May, and that the 2nd and 3rd Spanish armies had united near Alicante. Wellington of course also knew that rain had fallen during the night after the battle, that contact with the French had been lost, that the troops round Vitoria were in much disorder, and that looting of the enemy's baggage was in progress.

It is obvious that Wellington's object was still to do as much harm as possible to the French so as to influence events in the

other theatre of war ; and this could best be effected by pressing the French so hard as to prevent the concentration of their forces, and particularly a concentration between the groups in Navarre and Biscay—those under Joseph, Clausel and Foy—and the troops under Suchet. For a situation resembling, and almost as unfavourable to the Allies as, that in the autumn of 1812 would have resulted from such a concentration.

If the Allies had kept touch with King Joseph's army Wellington's evident course would have been to have followed it closely. But, as has been stated, contact had been lost at nightfall when the Allies halted, and a beaten army, and especially one without guns or transport, does not usually wait for the enemy if this can by any means be avoided. It was probable, therefore, that the French would be well on the way to Pampeluna on the 22nd ; and after reaching it they could retreat to the fortress of Bayonne, or they could go to Tudela, pick up the troops under Clausel, and then march down the Ebro towards Suchet's forces. The second course could no doubt be prevented if the Allies could again get close to the French, but another method of trying to stop it was for the main force of the Allies to march, not after the French, but by the made road from Vitoria towards Bayonne. For it was very probable that King Joseph's army would then hurry to the fortress—it is said not to have been in good condition, but Wellington could hardly know this—where, as actually was done, it could both be re-equipped and be ready to prevent the invasion of France. And if the French acted in this manner their principal groups would still both be separated, and there might be a chance of rushing the garrisons of the fortified places on the coast, S. Sebastian among them, while they were under the influence of the news of the defeat at Vitoria.

After the event it seems that Wellington might—for risks can and should be taken when dealing with a well-beaten enemy—with advantage have acted as he did in 1809 after crossing the Douro ; that is, he might have sent a force large enough to cope with Clausel's troops, if they were encountered, to pursue Joseph's army directly, and at the same time have moved the remainder of the allied force northwards along the main road.

In actual fact only Giron's group, which had not fought at Vitoria, and Longa's guerrillas were sent northwards for the purpose of pursuing the convoy and dealing with the troops under Foy. Of the rest the 6th Division had already been called up and was due at Vitoria on the 22nd, and the 5th Division and the Household

Cavalry were left at Vitoria for a time, but the remainder of the army began to march off on the 22nd at 10 a.m., that is, about 6 hours after daybreak, towards Pampeluna in direct pursuit of the French.

Wellington was a soldier who knew better than any one the supreme value of time in war, and this slowness can, therefore, only be accounted for by the necessity, or at any rate what he thought was the necessity, of giving time for the officers to collect their men and reestablish order. And that there was much disorder is shown by his complaint, even if the statements are exaggerated, that :

"We started with an army in the highest order, and up to the day of the battle nothing could get on better ; but that event has, as usual, annihilated all order and discipline. The soldiers of the army have got about a million sterling in money. . . . The night of the battle, instead of being passed in getting rest and food to prepare them for the pursuit on the following day, was passed by the soldiers in looking for plunder. (Some men, hungry after several days of short rations in their march over the mountains, also looted the French supply wagons and so gorged themselves and loaded their haversacks that they could hardly move.) The consequence was that they were incapable of marching in pursuit of the enemy and were totally knocked up. The rain came on and increased their fatigue, and I am convinced that we have now (29th of June) out of the ranks double the amount of our loss (5,000) in the battle ; and that we have lost more men in the pursuit than the enemy have ; and have never in any day made more than an ordinary march."

The 22nd of June was a day of heavy thunderstorms, and the roads—the army was in three columns but on routes in valleys that converged on Salvatierra—are said to have become knee-deep in clay, the French had set fire to the villages for the purpose of delaying the pursuit, and only the advanced cavalry got into touch with their rearguard. Before the headquarters left Vitoria Sir George Murray had written a memorandum to Wellington, who had ridden on to superintend the pursuit, suggesting that part of the left column should move on Villa Franca over the mountains by the Puerto de S. Adrian, so as to

"cut in upon the Bayonne road and intercept perhaps some part of the enemy's force or of his artillery or other convoys. . . . It occurs to me that perhaps General Giron may be retarded on the great road by some fortified post . . . and that any convoy going off by the great road of Bayonne may escape possibly without effective molestation."

At 3 p.m. Wellington replied :

"I approve of this, if it is not too late. Probably the two Portuguese Brigades (Pack's and Bradford's) and the 1st Division had better go,

and that part of the cavalry (actually Anson's Cavalry Brigade was sent) which has not marched. . . ."

Owing to a mistake in the staff work of general-headquarters only a small part of this force, of which Graham took command, however, actually moved in the new direction on the 22nd.

While these measures were being taken Clausel's group, ignorant that the battle had taken place, had moved on Vitoria, which was approached after the relief of the 5th Division by the 6th. The arrival of Clausel's force naturally caused some alarm among the Allies, but on seeing that Vitoria was in British hands he at once retired down the Ebro, and Giron's troops, as well as those of the 5th Division, which had halted on the approach of the French, then resumed their march. But touch with Clausel's group was lost.

Rain fell again on the 23rd, and on the 24th, which was also rainy, Wellington heard that the main French force had reached the fortress of Pampeluna, and that his weak advanced guard, the Light Division and Alten's cavalry, had disabled one of the two guns remaining with Joseph's army in a brief action on the wooded hills near it. On the next day part of the cavalry and the Light Division closed on Pampeluna, and Wellington received news that the force under Joseph had entered France.

Every one knows that, in principle, a victorious army should continue the pursuit "by day and night without regard to the exhaustion of men and horses so long as the enemy's troops remain in the field." But it is equally obvious that principles must be applied not dogmatically but according to circumstances, and, for reasons that will be stated later on, Wellington did not at this time wish to invade France. It seems, then, that for the moment he decided, while keeping in touch with Joseph's army, merely to blockade the fortress of Pampeluna. In the evening, however, a report came in from Mina, the guerrilla, that Clausel, who after leaving Vitoria had tried to get into communication with Joseph, was still on the Ebro to the west of Tudela with 15,000 men. Although the bad weather had produced "a great degree of sickness in the army" Wellington at once resolved to try to cut Clausel off, or at any rate to cause him to abandon his guns and vehicles.

On the 26th of June, therefore, while some of the cavalry followed the French along the roads to Bayonne a converging movement was begun against Clausel's detachment; for the 4th and Light Divisions were sent with Grant's Cavalry Brigade towards Tudela, to be followed by the 3rd and 7th Divisions and Ponsonby's Cavalry Brigade as soon as these had been relieved at Pampeluna by troops

under Hill, Silveira, and Morillo. At the same time the 6th Division and the Household Cavalry Brigade and Sanchez's Spanish Cavalry were ordered to march from Vitoria on Logrono. In spite of the fact that Mina's guerrillas were also on Clausel's track he escaped easily ; and on the 29th the pursuit was abandoned, for Wellington thought that it was more advantageous " to leave the road to France open for his corps by Jaca, than, by pushing the pursuit further, to force Clausel to join himself with Suchet."

During this period Graham's column and Giron's and Longa's Spaniards had, after sharp fighting, pushed Foy, who as Wellington thought had with him " the garrison of Bilbao and those of Mondragon and Tolosa, besides his division of the Army of Portugal," to the Bidasoa ; the Pancorbo fort had been captured by the Spanish Army of the Reserve, which had also at last reached the front, and this Army then took over the blockade of Pampeluna.

Early in July Wellington drove the French centre, which offered some resistance, back from the Bastan and over the main ridge of the Pyrenees. After Mina had been sent towards Saragossa to guard the right flank, the allied forces then took up a long line on the Franco-Spanish frontier from near Roncevalles to the mouth of the Bidasoa, so as to cover both the blockade of Pampeluna and the siege of the port of S. Sebastian, which was wanted as base and where the French had left a garrison.

While this victorious campaign was in progress the operations on the East Coast of the Peninsula, although strategically successful in that the attention of Suchet's army was occupied, had failed tactically. The 2nd and 3rd Spanish armies, instead of holding away from the French, attacked them prematurely on the Jucar and were repulsed. Sir John Murray landed at Tarragona, began to attack it, and then reembarked his troops in a hurry, abandoning 18 or 19 heavy guns. During the reembarkation he was relieved by Lord William Bentinck, who had been in Sicily, and, on the 27th of June, the Anglo-Sicilian-Spanish force had landed again at Alicante (Map 2).

It was, however, neither this check on the East Coast nor the apparent recovery of Joseph's army that had caused Wellington to pause in his advance, but the situation in Central and Northern Europe, where an armistice had been signed on the 4th of June and negotiations were proceeding. On the 12th of July Wellington wrote to Earl Bathurst, the Secretary for War :

" You will see by my recent despatches that we are in a good position here. I hope we shall soon have S. Sebastian (it did not fall until 9th

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MAP. I.

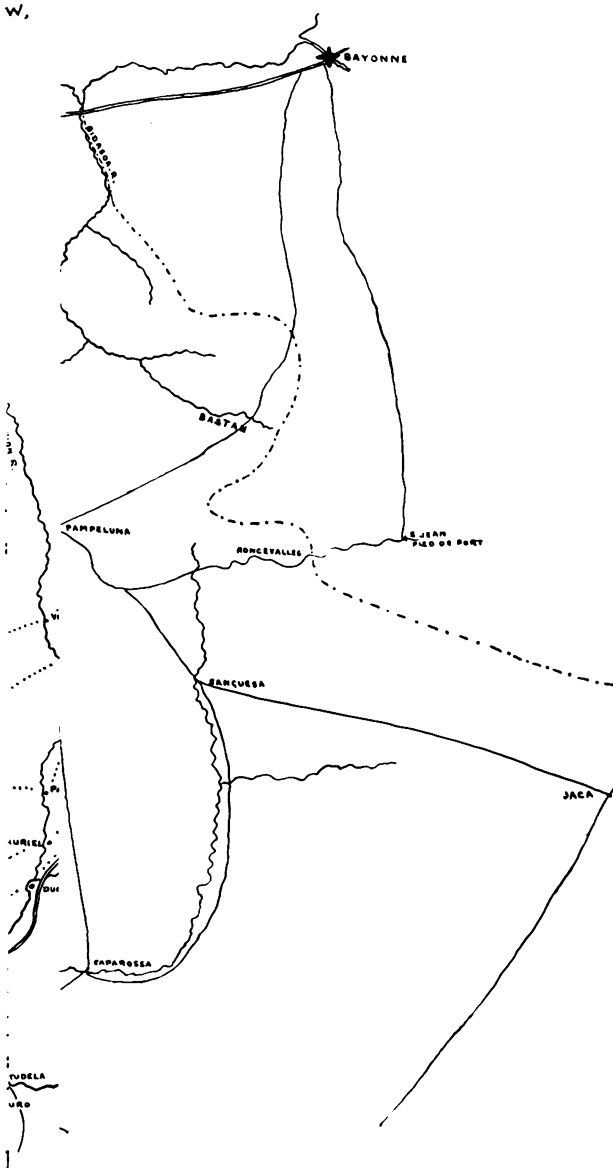


[To face page 280.]

A diagram showing a line with a starburst at one end and a scale bar below it. The scale bar is labeled "SCALE" and has markings for 10, 20, 30, and 40 M.

[To face page 280.

MAP. 3.



[To face page 280.

of September) and if we get well settled in the Pyrenees, it will take a good reinforcement to drive us from thence. My future operations will depend a good deal upon what passes in the north of Europe ; and if operations should commence there upon the strength and description of the reinforcement which the enemy will get in our front. However, the Government and the Allies may depend upon it that I will do all that I can. In regard to my going to Germany, I am the Prince Regent's servant and will do whatever he and his Government please ; . . . If a British army should be left in the Peninsula, therefore, it is best that I should remain with it. . . . I think that I can hold the Pyrenees as easily as I can Portugal."

In a letter to Lord William Bentinck, dated the 20th of July, he also wrote :

" In the course of a few days I hope to have possession of S. Sebastian, and I propose then either to move forward into France or to make myself master of all the garrisons in Aragon, still keeping the blockade of Pampeluna. Much will depend upon the state of affairs in the north of Europe. If the war should be renewed, I shall do most good by moving forward into France, and I shall probably be able to establish myself there. If not renewed I should only go into France to be driven out again ; and I shall do best to confine myself to secure what I have gained. In either case my movements will assist you ; in the latter more directly."

In addition Wellington wrote to General Dumouriez on the 18th of July :

" Je refais mon armée, qui avait beaucoup souffert par ses marches rapides et par un temps terrible depuis le 15 du mois passé. Je veux voir aussi ce que les Puissances D'Allemagne vont faire, et de quel côté le Maréchal Suchet se jettera avant de me trop aventurer en France."

So ended this campaign in which skilful use of advantage and opportunity triumphed over ineptitude, as will always be the case unless the odds against skill are overwhelming. As regards the larger issues of the war the sudden loss of almost the whole of Spain by the French can hardly have failed to influence the attitude of the Powers in Northern and Central Europe that were hostile to Napoleon. At any rate the negotiations that had been in progress at Prague came to nothing, and, at the conclusion of the armistice on the 10th of August—there were nominally six days' grace beyond the 10th—the Austrians joined the coalition against Napoleon. The war then began again, to end in 1814 in the abdication of the Emperor.

MORE MARNE THROUGH GERMAN SPECTACLES.

THE COLLAPSE OF THE GERMAN RIGHT WING.

(*With Map*)

THE fifth and last of the German official monographs on the battle of the Marne, 1914, is entitled "The Battle before Paris." * It deals with the battle of the Ourcq in some detail. Incidentally it mentions in general terms the measures taken to hold the great gap between the Armies of Kluck and Bülow. Thus this long account of the operations of these Armies in the battle of the Marne, with its minute description of the movements of battalions and batteries, and its citations of the heroic deeds of individuals, is brought to an end with little more than a passing reference to the fighting on the sector where the German front was broken and the events happened which led to the retirement first of Bülow's and then of Kluck's Army. There is a good deal of information, especially as regards times, about which in their apologies Kluck and Bülow were not very accurate.

The compiler's endeavour is to direct attention to the right and left flanks of the German First and Second Armies, where it is claimed "victories" were about to be won. We have seen in the previous monograph that on the left flank Bülow was trying to carry out his orders to "face Paris," that the Guard Corps and three Saxon Divisions had by midday on the 9th of September made a short advance and completed half the necessary wheel—obviously, with every step they moved forward, getting into greater difficulties and exposing their flank more and more to envelopment. The claim that Kluck's right wing was about to gain a victory is even thinner. The chapter heading itself, "The German right wing places itself ready for the blow," indicates the situation correctly. The blow was never delivered. The claim is bolstered up by printing at length orders which were never carried out, and by showing on the map not the real but "planned positions." On the other hand, the outer defences

* *Das Marnedrama* 1914. *Die Schlacht vor Paris*. IV. Teil. Oldenburg, Stallung, 5 marks. The four previous monographs were reviewed: I. July, 1928; II. January, 1929; III. (1) April, 1929; III. (2) October, 1929.

of Paris, outside the line of the forts, known as "the advanced line" and "the exterior line," and the troops of the garrison of Paris manning them, which lay ahead of Kluck, are neither shown on the maps nor mentioned in the text. It is proved by the actual statements in the monograph that the elements of the imminent "victory" were nothing more than a very slow advance without fighting of some very tired troops. The tussle was still to come when the Germans very wisely turned and retreated—they had had sufficient experience of French fortifications at Nancy and Verdun. With this introduction, we will proceed to the narrative.

On the night of the 4th of September Kluck, already across the Marne, issued orders for the continuance of the "pursuit" next day, past the eastern front of Paris, over the Grand Morin. His right, the II Corps and the IV Reserve Corps, with the battered 4th Cavalry Division, was to hang back slightly, but the IX, III and IV Corps and the 2nd and 9th Cavalry Divisions were to push on at full speed. Next morning at 7.15 a.m. he received the celebrated order "to remain opposite the eastern front of Paris . . . between Oise and Marne"—a position he never reached, ending his operations by facing the northern front. It is stated (in italics) that at this time Kluck had "no information about assembly of troops near Paris or railway transport of troops westward from other fronts," and it is admitted that on the 4th his aviators had been employed "nearly exclusively in reconnaissances towards the south; the space north-east and north of Paris remained nearly completely unobserved by aeroplanes." The word "nearly," which occurs twice, is employed because one aviator of the II Corps did see a few troops west of Dammartin, but this news, we are told, was "obviously" not sent on to the First Army.

"As no immediate danger seemed to threaten from Paris, General-Colonel von Kluck decided to continue the pursuit to the Seine; for the rest to prepare for the right wheel towards Paris in such a way that it could be ordered on the evening of the 5th."

Only the IV Reserve Corps (very weak, with 16 battalions instead of 25), and the 4th Cavalry Division (battered by the British at Néry, with a loss of all its guns, only five of which had been replaced), were ordered to halt and cover the flank of the Army north of the Marne; the other corps were permitted to go on, indeed, at 7.15 a.m., it would have been almost impossible, considering the miserable signal arrangements of the German Army, to get orders down through corps, divisions, brigades and regiments for units to stop the march in progress, begun at a very early hour.

During the morning of the 5th patrols of the 4th Cavalry Division collided with parties of French cavalry and found Dam-martin occupied by infantry, "probably a division." General von Gronau (IV Reserve Corps) sent some infantry to support his cavalry, and, at 12 noon, in order to clear up the situation, directed the 7th Reserve Division to attack, and the 22nd Reserve Division on its left to follow the 7th, with its left echeloned back. The Germans in this advance exposed themselves to envelopment from the south; the last reserve was put in; and at 5.30 p.m. Gronau ordered a retreat behind the Therouanne stream 6 miles in rear. And next day the retirement was carried still farther. "The troops were somewhat depressed by the overpowering effect of the enemy's artillery," and left most of the wounded on the field, but there is the usual claim that they had had "complete success," were about to begin the pursuit, and received the orders to retire with "astonishment, rebellious feelings, even rage." The best indication of the state of affairs in the IV R. Corps is that no report from it reached Kluck until "deep into the night," actually some time after midnight, and he first heard of its disaster—for it had had one—from the II Corps, which "shortly before midnight," telephoned to him "that it had come to its knowledge that the IV R. Corps had stumbled on superior forces of the enemy, and was going back behind the Therouanne valley."

"The full seriousness of the situation was thus revealed. The phantom of Paris [General von Kuhl's phrase] had taken on flesh and blood."

Meantime, General von Bülow had made a truer appreciation of the situation than Kluck, and, at 4.15 p.m., had warned the latter that the French were going back in good order in front of the Second, Third, Fourth and Fifth Armies, and, making use of their railways, were assembling all available forces north-west of Paris in order to fall on the German right. At 11 p.m.,* therefore, on the 5th, Kluck issued orders for his right, the II and IV Corps, to march back next day to the Marne; the III Corps in his centre to retire half-way to the river; and the IX on his left to stand fast. On receipt of definite news of the disaster on his right all he had to do was to order the II Corps to march as soon as possible, which it did at 4 a.m. on the 6th. It reached the Ourcq battlefield about midday and was at once engaged. The IV Corps sent off its trans-

* That is, before he had heard of the collision of Gronau's force with the Paris Army, sufficient evidence that the advance ordered by Galliéni did not give away the French plan prematurely.

port and waited ; it did not begin to move back until 9 p.m., after it had been learnt that things were still not going well on the Ourcq ; both flanks were said to be in danger ; aviators found that the northern one was being enveloped, whilst it was reported that the II Corps had been attacked by " British forces " and the IV R. Corps " hourly expected the appearance in the battle of the British, already reported in action." " The Paris phantom had been succeeded by a British ghost."

Kluck, having made a gap in his front, appears now to have become really alarmed. Bad news continued to descend on him : the advance of the British " faster than expected " ; his 3rd Division (II Corps), " can't hold on " ; the cavalry in the gap tumbling back, both flanks seem threatened. A defensive attitude was discussed. At 7 p.m. aviators reported " hostile columns [the B.E.F.] advancing from the line Forest of Crécy—Rozoy to the east," and at 8 p.m., after sending off the IV Corps, he begged Bülow by wireless to send two corps to protect the threatened right flank of the III Corps. Getting no answer in two hours, he decided to withdraw his III and IX Corps during the night behind the Petit Morin, and directed the II Cavalry Corps, together with the I Cavalry Corps (which belonged to Bülow), to cover the 30-mile gap which would thus be formed. But no arrangement was made for a single command of these forces, so one can guess how much the General Staff was hustled.

The IV Corps, which reinforced the IV R. Corps, was, like the II, thrust into the battle on the Ourcq as its divisions arrived, so that formations were broken up ; but here, for command purposes, " groups " were formed under the corps generals.

There is no need to follow the details of the Ourcq fighting on the 7th and 8th. There was practically stalemate : the attacks ordered on both sides, if carried out (which is doubtful), failed, the two forces remained facing each other on a line running north and south, with cavalry on the northern flank. The French, from right to left, had the 45th, 56th, 63rd, 14th and 61st Divisions opposite the German 3rd, 22nd R., 7th R., 8th, 4th and 7th. The French artillery, augmented by the guns of the fortifications of Paris, was much the stronger, and the Germans were held. The diary of a German colonel records : " The mass of the men is lying comatose (dull-quiet) and dead tired, and soon one heard snoring all around, in spite of the noise of battle. The exertions had been too great ; great anxiety lest the enemy attacks." The German 7th Division, on the outer flank, on the night of the 7th–8th, was swung back from Betz, retiring a couple of miles and leaving its wounded behind. On the

8th, on the left wing, the 3rd Division (left) had equally to wheel back and refuse its flank.

Kluck's last two corps in his original front, the III and IX, which he ordered to the Ourcq on the 7th, got clear from the French without much difficulty, as related in a previous monograph,* early on the 7th. The IX Corps was directed to the new right wing ; the III Corps to reinforce the fighting line, 6th Division to the right centre (it later went to the right flank), the 5th Division to the left centre. The four divisions marched all day, and halted between 1 a.m. and 2 a.m. on the 8th, after covering about 30 miles. Captain Bloem the novelist (III Corps) has described that march in his *Vormarsch*, which is quoted :

"Towards midday, such is the state of the men, that we company commanders told the C.O. : a rest is necessary, else we shall leave half of the men behind us. The whole regiment soon after rested in a meadow. The whole regiment ! There were not two-thirds of it present.

"All lay in deep, dull slumber. Not a joke, not a curse, comatose with entire indifference to what will happen.

"It is impossible to maintain march order. One sees nothing, only feels things are around one. The company pulls itself along. I curse, I warn, I try to make jokes. Not an echo, a sound, or a laugh ; neither laughing nor grumbling, only grim, leaden will-power carries them on ; only the monotonous tramp is heard of many hundred of march-wounded feet, dead tired feet.

"And so hours, hours. Whoever asks this of troops, knows that he demands the impossible. There must be much, probably everything, at stake."

One company commander reported :

"I will come on with the officers alone ; there won't be any others." And the narrative says, "The ascent of the steep northern side of the Marne valley decimated the infantry."

Yet after some three hours' rest the divisions were on the march again at 5 a.m. on the 8th. There was a short rest at 5 p.m. and they went on again until 2 a.m. on the 9th, the 18th Division covering over 36 miles in 22 hours, and the others doing much the same. The IX Corps had, however, arrived behind the northern flank on the Ourcq, and a march of a few miles more would enable it to make an enveloping attack.

The strength of the eight infantry regiments of the IX Corps at the beginning of the battle of the Marne is given for "other ranks," with an establishment of 3,000, as 1,875, 1,802, 2,031, 2,002, 1,983, 1,699, 1,133 and 1,955, and of the III Corps as 2,767, 1,900,

* See *Army Quarterly*, October, 1929.

2,041, 2,195, 2,456, 1,855, 1,506 and one not known. Deducting march casualties, the battalions must have been below half-establishment—indeed, we are told the 5th Division, which had the strongest regiment, 2,767 men, marched on the 9th at about the strength of a composite brigade.

Obviously, no great further effort could be expected of the III and IX Corps, wonderful marching troops as they were. Yet it is they, we are told, who were about to win a great victory when the retirement was ordered. The advance to the attack, as will be seen, was very slow. The French, however, had been reinforced only by the 7th Division of the IV Corps, the 8th Division was still south of the Marne and had been too much knocked about in the battles of the Frontier to be of any use.

Little had been done to hold the great gap between the right of Bülow, who was facing south-west and trying to face west, and the left of Kluck, who was facing west, north of Paris. After an aviator had brought in an exceedingly accurate report of the advance of the British columns to the Marne, at 11.20 a.m. on the 8th, Kluck sent orders to the IX Corps, then on the march northward, to detach two infantry brigades and two field artillery regiments to hold the line of the Marne against the British advance from Nogent l'Artaud (where the British 1st Division crossed) to La Ferté sous Jouarre (where the left of the British 4th Division crossed), both inclusive. Another order went to the II Cavalry Corps (two cavalry divisions, 4 Jäger and 1 infantry battalion) to hold La Ferté (already allotted to the IX Corps) and westward; but an hour after Kluck had issued his orders, the I Cavalry Corps (Richthofen) in front of the French, retired from the Marne, the Guard Cavalry Division going back north-eastward to the Dollan to guard Bülow's refused right flank, and the 5th Cavalry Division retiring northwards to Marigny.

General von Quast of the IX Corps detailed only one composite brigade, under Major-General Kraewel, to try to stop the British at the Marne. No maps were available for Kraewel; at 6 p.m., when he reached Montréuil ($7\frac{1}{2}$ miles from Nogent and La Ferté), some of his men had been 36 hours on the march and had covered $42\frac{1}{2}$ miles. It seemed impossible to get to the Marne in the dark. He did not know where the German cavalry or the British were. "He decided to keep his troops together. Thus the Marne bridges at Nogent, Nanteuil and the Mery peninsula, 5 to $7\frac{1}{2}$ miles away, remained undefended; even their demolition was not carried out, for there were no explosives." Quast had ordered an engineer company to go with Kraewel, but "for reasons not now for certain discoverable,

the orders never reached it." The 2nd Cavalry Division, however, destroyed the two bridges at La Ferté, but not the railway bridge east of them.

On the evening of the 8th of September Kluck, whose headquarters at La Ferté Milon had at 6 p.m. been attacked by French raiding cavalry, reported, not quite accurately, to O.H.L. :

" Army has to-day again held its own west of the Ourcq on the line Antilly—Congis in heavy fighting against superior forces [six German divisions against five French]. III and IX Corps arrived on right flank afternoon [They did not arrive until next morning], attack to-morrow early enveloping. Marne line Lizy—Nogent is defended by II Cavalry Corps and composite brigade against attack from direction of Coulommiers. [These troops were several miles north of the Marne.] Right wing of Second Army bent back from Montmirail on Fontenelle."

We may leave the passage of the Marne by the B.E.F., for it is described in the British Official History. It need only be said that the German 2nd and 9th Cavalry Divisions abandoned the defence of the Marne, and Marwitz assembled them at Cocherel, 6 miles north of the river, having had an alarming message from the 5th Cavalry Division (Richthofen's Corps) that it was being attacked at Marigny (6 miles north-east of Cocherel). It must have been in conflict with other German troops. Kraewel was attacked at Montreuil by the British 14th and 15th Infantry Brigades and eventually retired ; the German 5th Division (down to " about the strength of a composite brigade "), part of which was already engaged, was about 10 a.m. pulled out of the battle and marched back eastwards to help stop the British. It only reached Vendrest (2 miles north of Cocherel) at 2 p.m. At 1.15 p.m., however, General v. d. Marwitz had ordered a counter-attack by the II Cavalry Corps, Kraewel's Brigade and the 5th Division (from Dhuisy, which its head reached at 3.30 p.m.). Precious time was lost, and even at 5.10 p.m. no counter-attack had developed. Nevertheless, Marwitz informed Kluck he was about to make it, " although the situation is very far from clear."

The chapter heading of these events is " The successful defence of the left flank of the Army by General von der Marwitz." The text tells us that " the serious crisis had just been overcome here, and the scales seemed to be turning in favour of the Germans, when in the fifth hour of the afternoon the order to cover the retreat of the First Army arrived." To carry out his task Marwitz ordered an attack. " Then reports of the advance of the British columns [1st and 2nd Divisions], which threatened the left wing preparing to

attack south of Marigny, were received, and the intended attack had to be abandoned and the immediate retirement ordered." Here we have the interpretation of what "impending victory" means in German history. On the right flank, where further "similar successes were beckoning," the remnants of the III and IX Corps were about to appear on what they thought was the French left flank—only it was not there—and by all manœuvre rules the enemy must immediately retire. To the Germans it seemed that a rare piece of luck had befallen them on this flank. Lepel's brigade of 5 battalions left behind before Antwerp was on its way to rejoin the First Army, and, making straight south parallel to the enemy's front line, it was ordered to come down on the rear of the French. It marched 25 miles on the 8th and reached Verberie. It was then directed to Rully and the 10th *Landwehr* Brigade (6 battalions and 2 batteries) from the line of communications was to follow. Lepel marched at 5.30 a.m. on the 9th, but at 9 a.m. was still 6 miles north of Nanteuil. Reports of the arrival of his battalions reached General Maunoury, and gave him warning in time. In some alarm, he swung back the 7th and 61st Divisions, so that the French flank was secured, and nothing offered to the immediate attention of the III and IX Corps. The advance of Lepel's brigade was delayed by outpost troops, so that between 9 and 3 p.m. it only advanced 3 miles; it was after 4 p.m. when it got near Nanteuil, and although "victory" is claimed, it was never in contact with the French main line. The 10th *Landwehr* Brigade, scared by Cornulier-Lucinières' raiding cavalry division behind it, did not reach the battlefield. Still, for a manœuvre decision, the position of Lepel's brigade and of the *Landwehr* brigade would no doubt have counted much with the umpires.

We now come to the action on the 9th of the III and IX Corps after their 48 hours' march without much rest or sleep. Owing to the detaching of the 5th Division and Kraewel's six battalions, etc., the two corps were now down to nominally $2\frac{1}{2}$ divisions, but at little more than half-establishment, and they were both placed under General von Quast, as "Group Quast." His orders for an advance south-west were issued at 7.45 a.m. Two great belts of woods, each nearly 2 miles across, with a 3-mile space between them, lay ahead, passage through them being only possible on "small wood paths." It was not until 3 p.m. that the "victorious pressing forward of Group Quast" (this is a page heading) reached the railway beyond the woods; but the tired battalions were still more than 3 miles from the French main line. Fortunately perhaps for them, they were not engaged. Soon after 2 p.m., Quast had been informed

by Kluck's liaison officer that a retreat of the whole First Army was imminent. The written order for the retreat soon followed. "The attack which promised great results" had to be abandoned. The text does not give the exact position reached, the map shows the Germans still over $2\frac{1}{2}$ miles from the French main line, the "victory" still very distant. The total casualties of Quast's Group of the 6th, 17th and 18th Divisions (less Kraewel's composite brigade) in the battle of the Marne are given as 16 officers and 503 other ranks—not very desperate fighting.

It has been seen that to oppose the B.E.F. a division and a half had been detached from the two corps which were to strike the decisive blow against the French. The "from many sides over-estimated 'English danger,'" to use the compilers' phrase, was to occasion another important move. Soon after 11 a.m. Major-General von Kuhl (Kluck's C.G.S.) decided to "bend back the Group Linsingen," the left of the line, as flank protection against the British. He directed a G.S.O. to prepare the order and telephone a warning message. What happened had better be given in the words of the book :

"Whilst Major-General von Kuhl only desired a hint of the coming Army order, the G.S.O., who must have misunderstood the task allotted to him, worked this order out, and, without delay, telephoned to the Group Linsingen his draft, which completely failed to correspond with the real intentions of General von Kuhl. At the Group headquarters, the following was recorded as the contents of the telephone message, time of arrival 11.40 a.m. 'Second Army has withdrawn its right wing considerably from Montmirail. In consequence, the British are reported at 11 a.m. crossing the Marne in strong force at Charly and Nanteuil. General von Linsingen, including the Group Lochow under him [the left wing], will go back at once in direction Crouy—Coulombs, in the direction La Ferté Milon—Neuilly St. Front, with its flank protected. II Cavalry Corps, with Kraewel's brigade, will receive orders to cover the flank. Group Sixt von Armin [centre] will receive orders to cover withdrawal and then retreat behind the line Mareuil—Antilly. Group Quast [right] will cover movement by a thrust [not a decisive bid for victory as we are now asked to believe] in the direction of Nanteuil !"

From other sources it is known that the G.S.O. in question is dead. What he telephoned was acted on.* What the "misunderstanding" was, and how the message "completely failed to correspond with the real intentions" of Kuhl, is not stated in the monograph.

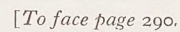
The Army order which "went out about 12 noon" [whether

* The histories of the infantry regiments of the 3rd Division, for instance, record that the retirement on the 9th was begun at 1 p.m.

The German Right Wing.
8th & 9th September (Final Situation).

According to the German Official Monograph (except the Paris defences).

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written or telephoned is not stated] is practically identical with the message not only in sense, but in wording, except that (1) Linsingen was told "to go back first to the area Crouy—Colombs," the further destination, La Ferté Milon—Neuilly St. Front, is, properly, omitted; but Kuhl in a wireless message to Marwitz at 11.30 a.m. told him that "the left wing goes back to Montigny—Gandelu via Crouy—Colombs"; and (2) Linsingen was told to send the 5th Division to "attack direction Dhuisy," although it was already detailed to Marwitz to help him stop the British. The monograph admits that the order was "not perhaps very happily worded," for between the 5th Division and Dhuisy was the II Cavalry Corps at Cocherel! Literal obedience to the order would have led to the 5th Division having a fight with its own people, just as it seems the 5th Cavalry Division had near Marigny.

The effect of the order was to pivot Kluck's Army on its centre, from facing west to facing south, ready for the further retirement foreshadowed in the telephone message.

One is inclined to believe that Lieut.-Colonel Hentsch's statement is absolutely correct, that Kluck's order for the retirement of the First Army was issued before he arrived at its headquarters at 1 p.m.

The First Army was in fact beaten when Kluck ordered its retirement. The monograph, though it quotes Captain Bloem (III Corps) once, does not give what he says about the final situation opposite the French: "We lie here in our hollow road, cowering, and fifty paces from us there comes down for hours every two minutes a hail of arm-long iron rollers." The French guns, as on the front of the German Second, Third, Fourth, Fifth and Sixth Armies, brought the situation into equilibrium; the advance of the British into the gap between Kluck and Bülow, turned the scale. The opinion of the compilers of the monograph is that "the crisis had been overcome" when Lieut.-Colonel Hentsch verbally ordered the retreat of the First Army, and Kuhl the Chief of the Staff of that Army accepted the order without taking him to see General von Kluck. To do so was, of course, unnecessary if orders for retreat had already been sent out.

The monograph does not record what regimental histories do: that the Germans in spite of their previous exertions marched all night to get clear covering between 20 and 25 miles. To use the words of the Saxon general, Baumgarten-Crusius, the first to reveal the secrets of the Marne, in 1919: "The great attack in the West was a gigantic Kaiser-manceuvre, with record-breaking marches and brilliant initial successes, but it fizzled out like a spent rocket." —

THE BATTLE OF SARREBOURG—VOSGES, AUGUST, 1914.

By A.F.P.C. AND F.A.S.C.

(With Four Maps)

PART II *

The Action of the French on the 20th of August.—As early as 06.00 hours, Joffre wired to ask if the night attack by the VIII Corps had succeeded. Dubail reported failure at 07.00 hours, but was still sanguine and added that if the Corps got on later he would “put the cavalry through without regard to man or beast.” During the morning, however, the Cavalry Corps, less the 6th Cavalry Division, was transferred to the Second Army.

After the failure of the attack, the VIII Corps was slowly driven back and by evening the commander decided to withdraw south of the Rhine—Marne canal, and during the night of the 20th—21st of August the line Moulin de Hesse †—Heming—Gondrexange was taken up.

On the morning of the 20th, the XIII Corps held an outpost position Plaine de Valsch—Brouderdorf—Schneckenbusch—Hill 330 (half a mile north of Hesse) with main bodies concentrated as already described, but both divisions became involved in the battle as it developed. The left division, in response to repeated requests from the VIII Corps, reinforced its forward troops; at 10.00 hours the troops holding Plaine de Valsch and Brouderdorf were attacked and driven back, whereupon the corps commander ordered the division to counter-attack at 14.00 hours and regain the former place. This order had just gone out when an instruction arrived from Dubail ordering the Corps to concentrate and move to the south bank of the canal between Hertzling and Xouxange. The corps commander was not in a position to comply, and all he could do was to order the brigade in corps reserve—the 49th Infantry Brigade—to go to the assistance of the VIII Corps, but in the meantime the left division had been heavily attacked and the divisional

* The first part of this Article appears in *The Army Quarterly*, October, 1929.

† Three-quarters of a mile west of Hesse.

commander had already put this formation into the fight. The Army instruction was, therefore, not carried out. Meanwhile the 26th Division had launched a counter-attack at 14.15 hours which made good progress. At 16.00 hours, the 25th Division also counter-attacked and retook Schneckenbusch and reached the outskirts of Buhl, whilst before nightfall the 26th Division had retaken Brouderdey.

Farther east, the XXI Corps had started to advance on Haarberg early in the morning, but met Germans everywhere in superior numbers. The corps was pushed back slowly all day on to the line St. Leon—Soldatenkopf (just north of the village of Soldatenthal)—Voyer, where touch was gained with the XIII Corps. The 13th Division successfully held the Donon position, largely through the efforts of its five Chasseur battalions, and elsewhere in the Bruche the German made little progress as already described.*

The Decision to Withdraw.—At about 12.00 hours, Dubail warned the Second Army that his left corps was withdrawing and that the Cavalry Corps was in the area Heming—Blamont—Avricourt. Later in the afternoon news was received at First Army headquarters that the right of the Second Army had been heavily attacked and was withdrawing to the general line Maizieres—Marsal. At 17.00 hours, however, Dubail ordered the First Army to stand and fight, and ordered the following for the 21st of August :

XIV Corps.—Will protect the right flank.

XXI Corps.—Will hold the general line Soldatenkopf—high ground east of Abreschwiller—Biberskirch.

XIII Corps.—Will hold general line thence through Hartzviller—high ground north-east of Hermelange.

VIII Corps.—Will hold the general line high ground north-east of Bebing—Kerprich.

This order was followed by an instruction, timed 19.30 hours, to say that if corps were anywhere in advance of this line they were to stay there and gain touch with formations on their flanks. At 19.50 hours, G.Q.G. telegraphed to the First and Second Armies that it was essential for the two armies in conjunction to fix on a line in front of which to stop the enemy. At 21.00 hours, however, G.Q.G. warned Dubail that the right corps of the Second Army was only holding the line Maizieres—Donnelay with weak rearguards and that the First Army must take measures to secure its left. It was evidently feared that the Germans would push on where they had met with the most success. At 03.00 hours on the 21st the

* The defence of the Donon was described in the *Army Quarterly*, April, 1929.

G.Q.G. liaison officer with First Army headquarters represented strongly to Dubail that as touch with the Second Army had been lost it was unwise to hold on to a position which must be turned, and insisted that the administrative services, at least, should be withdrawn across the River Meurthe. Dubail agreed, and ordered all second and third-line transport of the VIII, XIII and XXI Corps to move back behind the Meurthe. At 04.00 hours, he cancelled his operation order for the 21st and ordered the First Army to fall back across the river Vezouse, and the 6th Cavalry Division to move to Avricourt and gain touch with the Second Army.

The Situation of the First Army on the night of the 20th-21st of August.—Dubail's order of 17.00 hours was received too late to be acted upon by the VIII Corps, and the others remained in the positions regained by their counter-attacks, which were in many cases in advance of the line laid down. The general line held through the night was, Soldatenkopf—Hartzviller—Brouderdorf—Schneckenbusch—Hesse—thence along the south bank of the canal to Gondrexange. The centre of the First Army was therefore in a dangerously narrow salient on the morning of the 21st of August, but the Donon position was intact, and in the Bruche the Germans had made little progress.

The Sixth German Army on the 21st of August (Map I).—It has been seen that the course of events on the 20th had not come up to expectations, and although air reports had indicated enemy retirement on the front of the Sixth Army, it was expected that considerable opposition would still be met with on this front. The extent of the success on the right does not seem to have been realized until the morning of the 21st when the Sixth Army objective for the day was given as the line of the frontier from Manhoue to Moussey, whilst the Seventh Army was ordered to reach Badonviller. Rupprecht apparently did not know that the Donon had not been captured, much less that the Petit Donon had been taken and then abandoned.

The Cavalry Corps, consisting of the 8th and Bavarian Cavalry Divisions, did not intervene in the battle, and bivouacked early in the day about Delme, the reason advanced being that they were tired. The II and III Bavarian Corps reached the line Delme—Fallaucourt—Chambrey—Arracourt during the day without fighting, whilst the XXI Corps reached the frontier about La Garde by the evening. In the neighbourhood of the lakes, the 7th Cavalry Division pushed ahead, and by mid-day reached the Rhine—Marne canal without opposition; a crossing was gained west of Moussey (Map II), but no further progress was made, and the cavalry eventually withdrew to

the shelter of the woods north of Moussey. The Bavarian Reserve Corps did not start until late, and after considerable confusion on the march, caused by the cavalry division and attempts of the XXI Corps to push in towards Azoudange, both divisions reached Mazieres during the evening. After a halt, the 1st Bavarian Reserve Division pushed on again, succeeded in crossing the canal west of Moussey, and by midnight its leading elements were in Avricourt.

The Seventh Army on the 21st of August.—It seems that Army headquarters did not know exactly the positions reached by the various corps during the 20th, whilst the extent of the failure of the XIV Reserve Corps does not appear to have been realized, for it was confidently expected that this corps would be in a position to intervene in the neighbourhood of Raon-sur-Plaine during the afternoon of the 21st. It was thought that the I Bavarian Corps had reached the line Gondrexange—Lorquin, the second objective given for the 20th, consequently Von Heeringen ordered it to wait on this line until the XIV Corps, whose right was at Buhl, should draw level with it.

I Bavarian Corps.—The corps commander did not know that his 2nd Division had reached the Rhine—Marne canal near Hertzling Heming, and under the impression that it was further in rear, had issued orders for the attack to be continued at daybreak, the objective given being Gondrexange—Lorquin. The commander of the 1st Division, was in touch with the G.O.C. XIV Corps, who reported that, owing to the difficulty in bringing up ammunition, he would not be able to advance before 09.00 hours. The 1st Division, therefore, attacked astride the Sarre at 09.00 hours and succeeded in driving the French from their position about Imling by 11.00 hours. At 09.00 hours, however, the French made a determined counter-attack from Hertzling—Heming against the 2nd Division and were only driven back after about two hours' fighting, but the Bavarians, although in possession of the canal bridges at Gondrexange and about Heming, made no attempt to pursue. Although as early as 11.00 hours, Army headquarters had pointed out that in order to support the XIV Corps and to cut off the enemy in front of the XV Corps it was necessary to gain the heights of Lorquin and Hesse, it was not until 14.15 hours that the Bavarian Corps again ordered a concerted advance. The 2nd Division then moved forward and secured the heights south of Gondrexange without fighting, while the 1st Division reached Landange.

XIV Corps.—This formation had been ordered to resume the battle at 05.00 hours, but owing to the difficulty of replenishing

ammunition, it was 09.00 hours before the 29th Division on the right commenced to advance, and by this time the 28th Division was heavily engaged with the French north of Hartzviller. After the success of the 1st Bavarian Division about Imling, the 29th Division pushed on and took Hesse and Schneckenbusch about mid-day; this eased the situation in front of the 28th Division, who took Hartzviller and captured a large number of guns which had been in action in the neighbourhood. By late afternoon, the line Nitting—Biberskirch had been reached, and at 18.30 hours, the Corps ordered the divisions to push on to the Red Sarre, south of Hermelange.

XV Corps.—The right Division, the 30th, had some difficulty in ascertaining the actual positions of the enemy except on the high ground south of Biberskirch. About 10.00 hours, however, the leading troops debouched from the woods and took this position together with a number of guns. A brigade of the Guard *Ersatz* Division was now placed under the command of the 30th Division, but even then it was only found possible to maintain the position gained, and for the rest of the day the division remained on the line Valette—Breschwiller suffering considerable casualties from hostile artillery. In the 39th Division area, some heavy artillery had been got into position to support the attack, and as a result St. Leon was easily captured, as was the Soldatenkopf, but the enemy only retired to the next ridge, and the division did not advance again until 17.30 hours, when it was found that the French had withdrawn.

XIV Reserve Corps.—During the night of the 20th–21st of August, Army headquarters had reminded this corps that the main object was to defeat the French decisively south of Sarrebourg. The corps commander, however, replied that owing to the scattered situation of his units and the difficulty of getting up ammunition and rations in the corps area, his divisions would not be available for a major operation next day. He suggested, however, that after the capture of the Donon he would advance in the direction of Badonviller, but he did not expect to be able to do so until the late afternoon.

The 28th Reserve Division was again ordered to take the Donon, a brigade of the 26th Reserve Division was detailed to assist the group about Grandfontaine, whilst the remainder of the latter division was to maintain its positions in the Bruche valley south of Schirmeck. The former division reoccupied the Petit Donon at 11.00 hours and soon after reached the foot of the Donon itself, but was unable to

advance further. The attack on Grandfontaine was again a complete failure. The 19th *Ersatz* Division, with the exception of lost units and stragglers, was back at Barr and took no part in the fighting on this day, but the 30th Reserve Division reached the line Ranrupt—La Salcée and captured six guns. Further south, the Bavarian *Ersatz* Division began to advance in strength up the St. Marie Valley, it being considered that owing to the result of the Battle of Sarrebourg the *Landwehr* detachments could safely hold the French in the Rhine Valley. The operations of the Army of Alsace therefore did not even secure the retention of a similar number of German field troops in Upper Alsace, and certainly did nothing to protect the right flank of the First Army.

The slowness of the advance of the XIV Reserve Corps at the Donon was a great disappointment to Rupprecht. He informed Von Heeringen that, according to air reports, French train transport was withdrawing everywhere on the front of the Seventh Army, and requested that the XIV Reserve Corps should push on to Badonviller without delay. By mid-day, Rupprecht was again urging Von Heeringen to expedite the capture of the Donon, but it appears that the latter now began to doubt the ability of his troops to take the position.

The Situation as Viewed at Seventh Army Headquarters on the Afternoon of the 21st of August.—From air and other information it seemed that the enemy was retiring covered by rearguards on the line St. Georges—Lorquin—Voyer. The left of the Sixth Army was still advancing whilst the I Bavarian Corps was about to attack the enemy rearguard position at St. Georges—Landange. The XIV Corps had reached Nitting—Biberskirch, whilst the XV Corps was in touch with the enemy on the line Voyer—ridge west of Soldatenthal. The Donon had again been reported captured, but the French were said to be holding organized positions to the west of the pass and about Grandfontaine. After considering this information, and with a view to cutting off the French opposite the XV Corps, Von Heeringen at 18.00 hours ordered the right and centre corps to pursue in a southerly direction and gave the following as final objectives for the day :

I Bavarian Corps.—High ground about St. Georges—height south-west of Lorquin.

XIV Corps.—Niderhof, and to push on south of Voyer.

XV Corps.—To advance on St. Quirin and cut off the retreat of the French on the Donon position.

XIV Reserve Corps.—Badonviller—Raon L'Étape.

Guard Ersatz Division.—To Biberskirch.

Events of the Evening of the 21st of August.—The I Bavarian Corps reported at 20.00 hours that its objectives had been gained and that the French were withdrawing rapidly; the XIV Corps did not receive the above orders until 20.00 hours and its forward troops halted on the line, south-western exits of Lorquin—Voyer; the XV Corps captured Breschwiller. The advance of the XIV Reserve Corps had come to a standstill soon after mid-day, it being found that “the enemy resistance was stronger than the will-power of the German leaders and equal to all the efforts of the brave troops,” and nothing more was attempted.

Once more the course of events had not fulfilled Rupprecht's expectations, and it was at last realized that the XIV Reserve Corps was not strong enough at the decisive point—the Donon. It is probable too, that the troops were mentally and physically tired after their efforts of the preceding day, for nowhere were they so enterprising as on the 20th, the so-called pursuit came to nothing and no large bodies of troops were cut off in the area south of Sarrebourg. It was now apparent to Rupprecht that the French were withdrawing everywhere and that the detachments in the Vosges were only fighting to gain time. There was consequently no hope of a little Cannæ. He therefore ordered a direct pursuit to the River Meurthe, covered by flank guards watching the Grand Couronné.

The First Army on the 21st of August.—At 05.00 hours, before the Corps had received the order to withdraw to the Vezouse, the Germans attacked the left of the XXI Corps and along the front of the XIII Corps, driving in the foremost troops. At 06.30 hours, however, the XXI Corps received the order and preparations for an orderly withdrawal were made. A rearguard, consisting of the two infantry brigades in reserve, was formed and placed in position on the ridges south of Soldatenthal and astride the St. Quirin valley with orders to prevent the enemy gaining these positions before nightfall. The remainder of the corps was then withdrawn without difficulty to its new positions on the Vezouse. The XIII Corps, which was holding its ground successfully, did not receive the order until 09.30 hours. The order was at once repeated to both divisions, but only reached the 25th Division on the left which thereupon withdrew without any difficulty. The 26th Division, left in the air, had finally to make a hurried retirement to avoid envelopment during which the units became much disorganized, casualties were heavy, and much of the artillery was abandoned. The VIII Corps, not being attacked, withdrew according to plan, whilst further west the 6th Cavalry Division succeeded in delaying the enemy south of the canal and was

withdrawn in the evening. Thus, by nightfall, the First Army was in position behind the line of the River Vezouse as far west as Blamont, whence the line was extended westward to Reillon.

On the right flank of the Army, however, the Germans had met with little success; although they had advanced a little west of Ranrupt they again failed to take the Donon. Although Dubail's order for the retreat insisted on the retention of the Donon at all costs, the 13th Division began to withdraw during the afternoon into the Plaine Valley, leaving a rearguard to hold the Donon position. This detachment retired during the night, and as the Germans made no attempt to push on after their failure in the morning, the Donon was not held by either side during the night of the 21st–22nd of August.*

Comments.—The necessity for coordinated withdrawals is clearly brought out on this day, just as it was at Mons a few days later. Had the retirement of the XXI, XIII and VIII Corps been timed, † it is probable that the withdrawal of the XIII Corps would have been less difficult and costly than it was; under the circumstances, it was fortunate for the First Army that the Germans did not advance against the exposed salient occupied by this corps with the same dash they had displayed on the previous day.

Subsequent Events.—On the 22nd of August, the French withdrew from the River Vezouse position; they retired again on the 23rd, and on the evening of that day the First Army held the line St. Marie Pass—Lubine—Col du Hantz—Celles—Baccarat, whence the line was bent back towards Charmes. G.Q.G. had warned the First Army on the 22nd that the object was now to lure the Germans into the Trouée des Charmes, and that Dubail must be prepared to resume the offensive. Actually, O.H.L. had ordered Rupprecht to pursue through the Trouée, and on the 24th of August he launched an attack on the Second Army. The left of the First Army, reinforced by a fresh division and some groups of Alpine Chasseurs, then counter-attacked the German left. Gradually the German advance was brought to a standstill, and early in September their offensive in Lorraine finally broke down.

General Comments.—This battle may perhaps best be classified as one of lost opportunities. The Germans do not appear to have realized the effect of their sudden heavy blow on the morale of the French, and instead of pushing on vigorously where success had been

* The fighting in this neighbourhood was described in detail in the *Army Quarterly*, April, 1929.

† See F.S.R., vol. ii, s. 52 (3).

obtained, everything was allowed to depend on the success of the left flank in the Vosges where it should have been realized that all the factors were against a quick advance.

The use of cavalry on both sides seems to have been similar to that in vogue in all continental armies at that time. The German Cavalry Corps, once the armies were in touch, withdrew into reserve and took no part in the battle or "pursuit" except to march and counter-march in rear of the army and to report that they were "tired." The French cavalry were also reported to be "tired," but it is astonishing that the French with three cavalry divisions available, in addition to corps cavalry and aircraft, should have been so ignorant of the strength and intentions of the Germans. That the "fog of war" was so dense that a gigantic encounter battle ensued shows how ineffective the cavalry must have been at its primary task. Even a few identifications, gained on the 17th or 18th of August, would have given some idea of the strength of the Germans.

It is a noteworthy feature of this battle that French attacks on enemy in position continually broke down, it is suggested that in spite of their doctrine of the offensive at all costs they did not apply properly the principle of fire and movement. This doctrine reacted in another way, for they do not appear to have been able at this period to withstand the onslaught of a prepared German attack, a failing which may be attributed to lack of thought on the subject, and training in defence. Yet their counter-attacks, of which they made great use, were almost invariably successful, and are constantly referred to by the Germans as delaying and disorganizing their advance. It is probable that the morale of conscript armies at the beginning of a war is such as to make them peculiarly susceptible to counter-attacks, and this factor doubtless contributed very much to the French successes in this direction. Nevertheless, in difficult country, where the extent and effect of such attacks are difficult to gauge, they must always be a most effective weapon in the hands of a resolute commander with good and well-trained troops at his disposal.

The effect of the difficult Vosges country on the operations of the Seventh Army has already been commented upon. This area was known to both sides, and presumably the limitations of guns in wooded hilly country were realized; yet the French had neglected to provide themselves with howitzers, and even their mountain artillery was equipped with a gun, whilst the Germans gave the most difficult task of all to the one corps in the Seventh Army which had no howitzers—the XIV Reserve.

It is suggested that the subject of "ground" is one which is becoming more than ever important in view of the increasing use of mechanization, and that areas such as the Vosges may be of infinite value in future to the side which knows how to use ground and possesses well-trained infantry.

APPENDIX A

EXTRACTS FROM PLAN XVII AFFECTING THE FIRST AND SECOND FRENCH ARMIES

FIRST ARMY

Five Corps, VII, VIII, XIII, XIV, XXI. Two cavalry divisions, 6th and 8th. Five regiments of heavy artillery (six batteries of 120 B., six batteries of 155 C.T.R. ; two groups at Epinal.

General Idea

This Army will attack in the general direction Baccarat—Sarrebouurg—Sarreguemines—the right of its main body following the crest of the Vosges, and its extreme right advancing into the plains of Alsace, so that the right of the whole battle front may rest on the Rhine.

By this advance it will be able to cooperate with the offensive of the Second Army which is to be made in the direction of Château Salins.

The First Army may be called upon to move out from the Meurthe on the 12th day of mobilization. As a preliminary measure it will as early as possible be in a position to drive back the enemy from the eastern slopes of the Vosges, north of the Schlucht, but at the same time it will avoid becoming engaged with any strong forces in the Alsatian Plain.

A part of this Army will advance as early as possible, on the order of the Commander-in-Chief, into Upper Alsace by the Belfort Gap, the pass of the Schlucht and the intermediate passes, in the general direction of Colmar.

Special Idea for the Group Operating in Alsace

The order to advance into Alsace may be given by the Commander-in-Chief any time after the fourth day of mobilization. The part of the First Army to carry out this operation will consist of the VII Corps and the 8th Cavalry Division.

Its special idea is to hold in Alsace, by attacking them, any enemy forces which may attempt to advance on the eastern slopes of the Vosges, and to assist the removal of that part of the population of Alsace that has remained faithful to the cause of France.

SECOND ARMY

Five Corps, IX, XV, XVI, XVIII, XX. Two cavalry divisions, 2nd and 10th. One regiment of heavy artillery (six batteries of 120 L.) ;

seven batteries of 155 C.T.R. ; one group of four batteries of 120 L., 2nd Group of Reserve Division (59th, 65th, 70th).

General Idea

This Army is to be ready to attack in the general direction Château Salins—Sarrebruck. For this purpose, it will make use of the Nancy bridgehead, for the protection of which it will be responsible. Its dispositions will be made so that it can at first occupy a front Luneville—Grand Couronné de Nancy, from which line it may be called upon to advance on the 12th day of mobilization.

It should be possible to send the 2nd Group of Reserve Divisions to the area north of Nancy as they detrain, so as to oppose any possible operation of German forces coming from Metz and to assure the protection of the left flank of the Second Army.

NOTE.—(a) The 1st Group of Reserve Divisions went to the Army of Alsace in 1914, but the First Army received, in addition to the troops enumerated above, 70th Reserve Division and the 115th Brigade of the 58th Reserve Division.

(b) The 2nd, 6th, and 10th Cavalry Divisions mentioned above as part of First and Second Armies were in 1914 formed into a corps—"le Corps Conneau."

APPENDIX B

ORDER OF BATTLE OF THE SIXTH AND SEVENTH GERMAN ARMIES AND METZ RESERVE, AUGUST, 1914

SIXTH ARMY

XXI Corps.

31st Division.

42nd Division.

I Bavarian Corps.

1st Bavarian Division.

2nd Bavarian Division.

II Bavarian Corps.

3rd Bavarian Division.

4th Bavarian Division.

III Bavarian Corps.

5th Bavarian Division.

6th Bavarian Division.

I Bavarian Reserve Corps.

1st Bavarian Reserve Division.

5th Bavarian Reserve Division.

5th Bavarian Mixed Landwehr Brigade.

III Cavalry Corps.

7th Cavalry Division.

8th Cavalry Division.

Bavarian Cavalry Division.

4th Ersatz Division.

8th Ersatz Division.

10th Ersatz Division.

SKETCH MAP 1

GENERAL MAP



AC Jenner, R.E.
 12-7-29.

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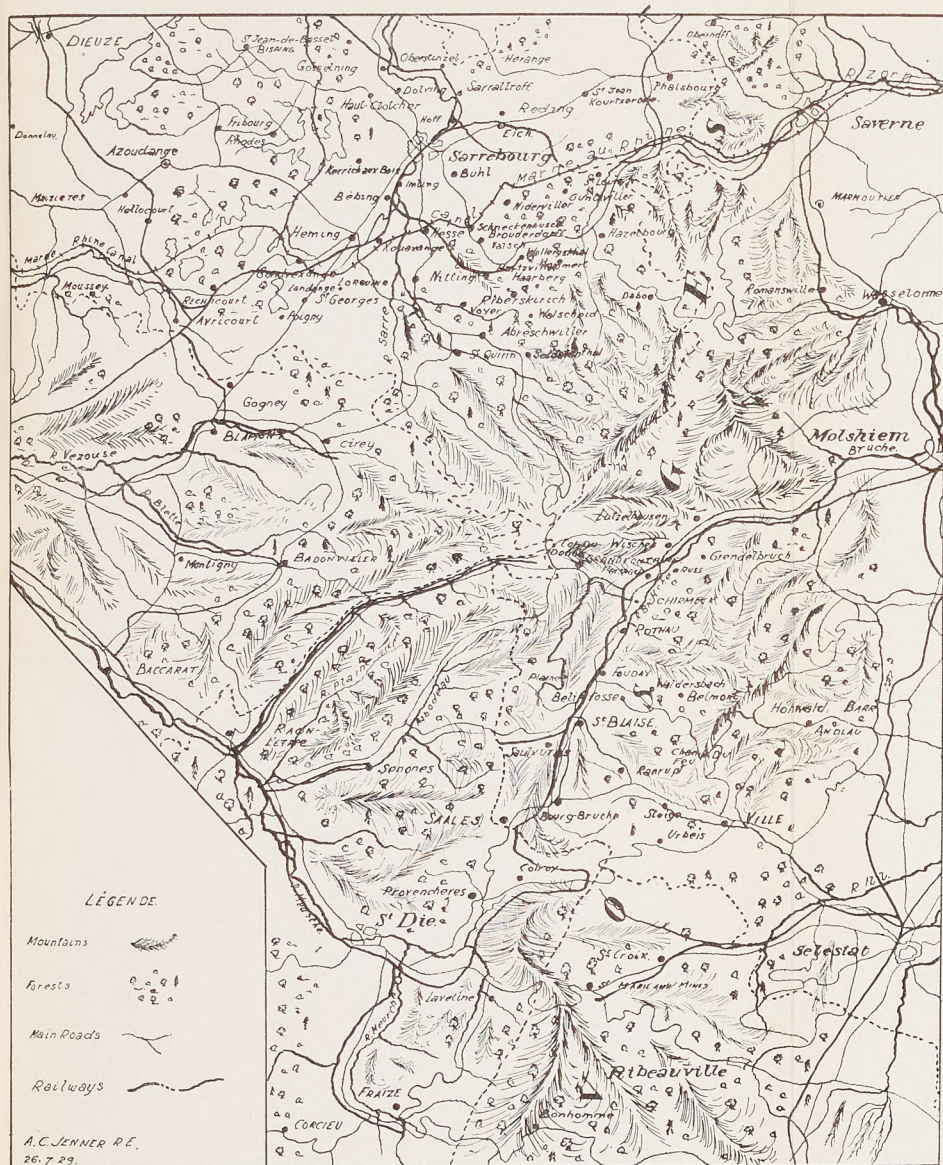
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SKETCH MAP 2.



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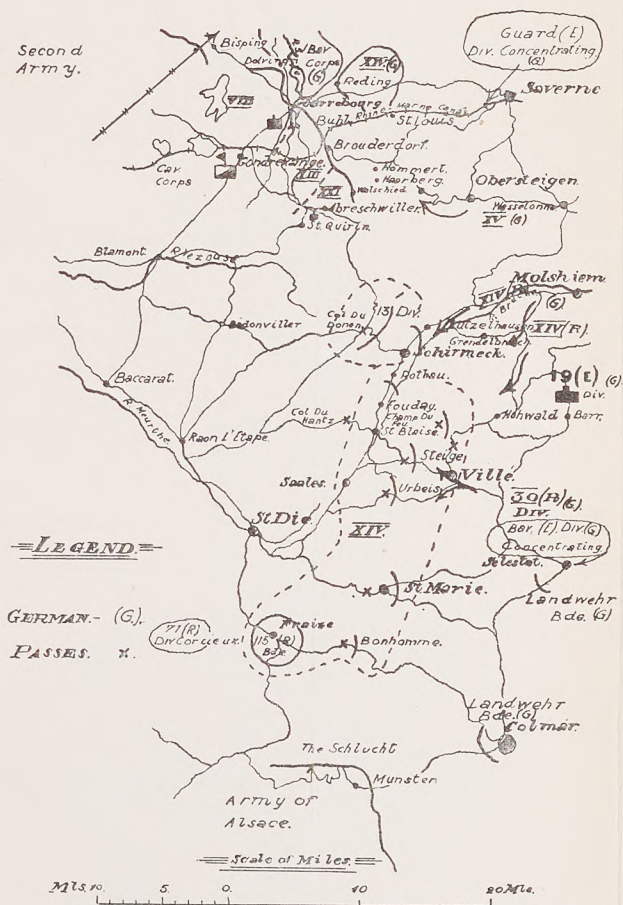


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SKETCH MAP 3.

== POSITION FRENCH FIRST ==
 — ARMY FRONT. —

— EVENING, 18th AUGUST, 1914. —



A. C. JENNER, R. E.,
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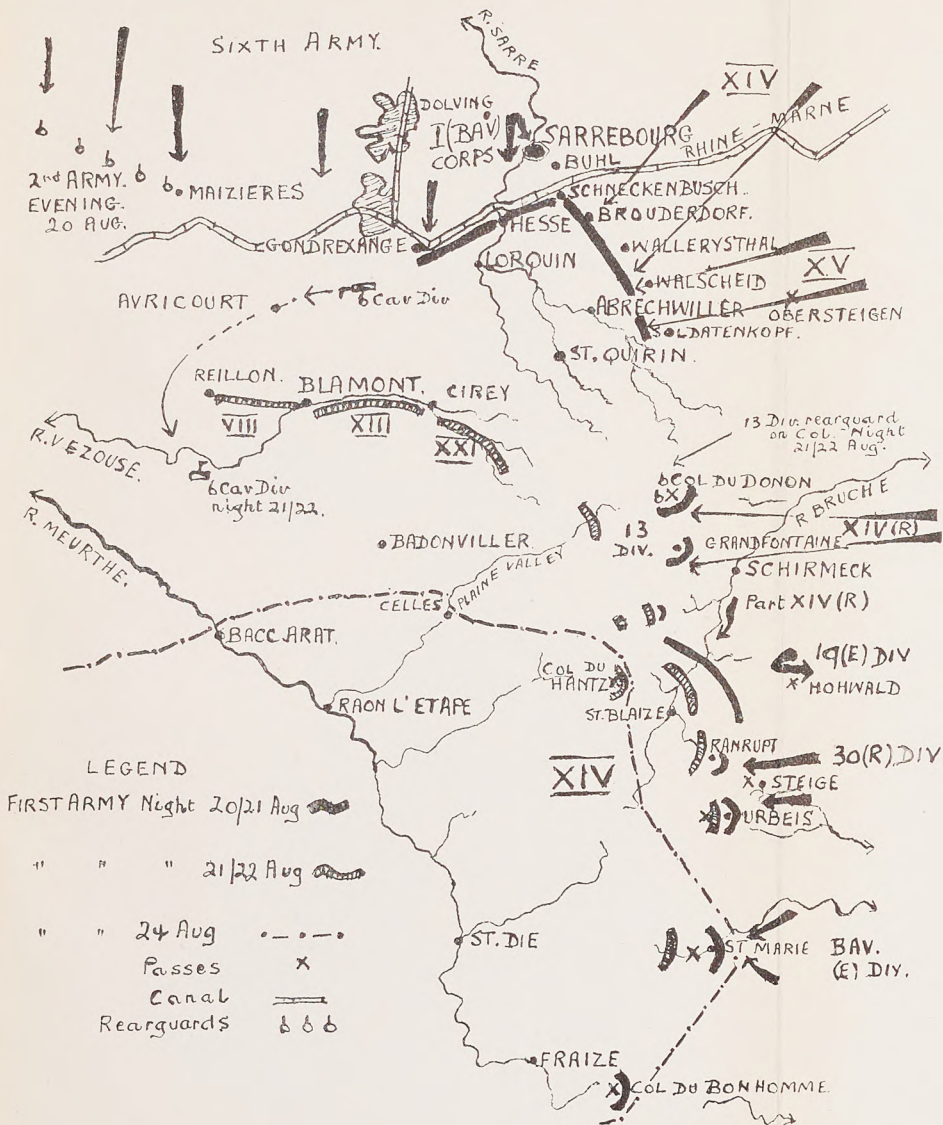
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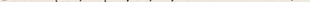
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face page 302.

SEVENTH ARMY

XIV Corps.

28th Division.

29th Division.

XV Corps.

30th Division.

39th Division.

XIV Reserve Corps.

26th Reserve Division.

28th Reserve Division.

30th Reserve Division (from Strasbourg Reserve).

Guard Ersatz Division.

Bavarian Ersatz Division.

19th Ersatz Division.

60th Mixed Landwehr Brigade.

METZ RESERVE

33rd Reserve Division.

Two Landwehr Infantry Regiments.

Heavy artillery from Metz.

APPENDIX C

INSTRUCTIONS ISSUED TO GERMAN LEFT WING ARMIES BY O.H.L.
ON MOBILIZATION, AUGUST, 1914

The protection of the left flank of Germany's main forces will be effected by the fortresses of Thionville and Metz, as well as by the formations concentrating south-east of Metz, consisting of the Sixth and Seventh Armies and the III Cavalry Corps.

On the River Nied, between Metz and the River Sarre, a line of field defences will be established, to be known as the Nied Position. The garrison to consist of seven Landwehr Brigades and some 4-inch and 5-inch batteries.

The forces to the south-east of Metz will be placed under the chief command of the senior of the two army commanders. His object will be to advance on the River Moselle below Frouard and the River Meurthe—capturing the forts of Manonvillers—so as to pin to the ground the forces concentrated in this area and prevent their transfer to the left wing of the French Armies.

This plan may have to be modified if the French themselves should decide to advance in superior numbers between Metz and the Vosges. The Sixth and Seventh Armies will then fall back in such a way as to prevent the envelopment of the Nied position by the French, since this would entail a threat to the left flank of the main German forces. If necessary, the Sixth Army will detail extra troops for the Nied position.

RAILWAYS IN WAR

BY LIEUT.-COLONEL E. ST. G. KIRKE, D.S.O., R.E.

WHILE the importance of transportation as an indispensable adjunct to war is now becoming generally recognized, financial considerations make it difficult in peace to disseminate practical knowledge of the subject throughout the army. Partly for the same reason, and partly because the forces engaged are numerically insignificant, manœuvres in peace fail to exercise any but road transport.

This road transport is not subject to the usual hazards of war, and, moving along excellent roads for the most part, affords little evidence of what its limitations would be, when moving across broken roadless country, liable to tropical rain or dust storms.

In general, the supply and maintenance of a British army in the field involves more operations than that of a similar continental army. This is because our wars have hitherto been overseas.

These operations are as follows :—

- (a) Manufacturing and collecting the necessary munitions and supplies at home and abroad.
- (b) Railing it to the most suitable seaport.
- (c) Loading into ships.
- (d) Carriage by sea to the overseas base port.
- (e) Offloading at the overseas base on to wharves or into lighters.
- (f) Clearing, railing and unloading into base depots.
- (g) Reloading at the base depots into trucks, and railing to the Regulating Station.
- (h) Sorting into trucks, and making up into "section" or "pack" trains for the daily requirements of each formation.
- (i) Railing to railheads.
- (j) Unloading into 3-ton lorries of the R.A.S.C. Maintenance Coys., carrying and transferring at "refilling points" into 30-cwt. lorries of the divisional train.

(k) Delivery at the "delivery point" to units' first-line transport.

Of this chain of supply, facilities for the first four links exist in peace, and are exercised in the normal course of commerce. They can therefore readily be made available in war, if the necessary payment is forthcoming.

With regard to (e), wharves may not exist as and where required, and in this case they must be created *ab initio*, for instance, Kantara and Basra. Lighters may be used for small forces, or in the first stages of a landing.

For all the succeeding operations up to railhead, a railway is essential, and it is clear that without a railway the above chain of supply ceases to exist, however perfect the remaining links may be.

As regards the last operations, i.e. beyond railhead, enough lorries can generally be secured by subsidizing suitable ones in peace, the chief proviso being that they should conform to one standard as much as possible, to simplify the question of spare parts.

Unless, then, a railway exists just where it is wanted on the outbreak of war, no operations on a large scale can be conducted until a railway is made. This is proved by military history for the last three-quarters of a century. During that time no successful war has ever been waged in which railways did not play a predominant part. Only one has been attempted, our campaign in Mesopotamia. The lack of a railway leading through the Khyber was again felt in 1919.

We were unable to pursue the Afghans more than a day's march from our concentration area, because we could not maintain our army at a greater distance. As a result of this experience a railway has since been built through the Khyber, and this will enable us to operate at an early stage of any future campaign beyond the main barrier of mountains. It will also enable us to maintain a force behind our most dangerous enemies on that part of the frontier.

While maps show whether or not a railway runs through a certain locality, and where the stations are sited, they give no indication of its carrying capacity. In all probability they do not show whether the line is double or single.

It is with the carrying capacity of a line that the army is vitally concerned, but all lines vary in this respect, mainly because of two considerations, which are—

(a) The number of trains per day which can be run in each direction ;

(b) The useful load of each train running in the forward direction.

From a knowledge of these two factors can be deduced the size of the force which any given railway, as it stands, can adequately maintain. Conversely, if a railway has to be built or extended, it must be done on a scale adequate to the size of force which it is intended to maintain.

THE NUMBER OF TRAINS A DAY

This depends on—

- (i) The average running speed possible, which in its turn is dependent upon
- (ii) The distance apart of crossing stations, or traffic control points (called "block sections");
- (iii) Adequate station facilities in the way of water, coal, sidings and platforms;
- (iv) An adequate number and size of engines and rolling stock;
- (v) The conditions and standard of permanent way;
- (vi) Restrictions on night running.

Train capacity may be calculated by working out the number of trains which can be run during the twenty-four hours over the longest section (measured in time) between stations, say, "T." Add five minutes to "T" for traffic control purposes at stations. Allow an efficiency factor of 75 per cent.

Then the capacity of a single line in pairs of trains

$$= \frac{75}{100} \times \frac{24 \text{ (hours)} \times 60 \text{ (minutes)}}{2 \times (\text{T plus } 5) \text{ minutes}} = \frac{540}{\text{T plus } 5}$$

On double lines the limit is usually the capacity of the terminus in sidings, turn-round facilities, water, etc., but on mountain sections it may be caused by the severity of gradients.

As regards (i). The average running speed of goods trains in England is 15 m.p.h., which is almost the same as the 25 kilometres an hour allowed in the French Concentration timings for their troop trains at the beginning of the Great War. The German figures for the same task was $22\frac{1}{2}$ k.p.h. It may be assumed, therefore, that 15 m.p.h. is the maximum allowable average under conditions of first-class permanent way before any damage or deterioration has taken place. On badly laid or damaged line 12 m.p.h. was considered a good average in France.

(ii) On double lines the distance apart of stations is not so important as the distance apart of "block" posts, since all traffic on each track is moving in the same direction. There is therefore no risk of head-on collisions, and it is even permissible under active service conditions to have more than one train in the same block section. In this case trains follow each other either "at sight," in flat open country, or at a time interval of, say, ten minutes. The actual time depends on the distance in which a train can stop, and must be such as will allow the guard of the leading train, should it derail, to run back and warn the following train, by signals or detonators, in time to prevent a collision.

With a single line, however, the case is far otherwise, since two trains must not be in a section at the same time if they are going in opposite directions.

Trials in such widely separated countries as France and India have led to the same conclusion, namely, that on a single line the distance apart of crossing stations should correspond to a twenty minutes' run. This distance may vary from one and a half miles on a mountain railway, e.g. the Khyber Railway, to six miles or more in flat country such as the Punjab or Sind.

This twenty minutes' run between stations would give a maximum of 72 trains in the 24 hours, or 36 trains in each direction (i.e. 36 "pairs" of trains) if no delays were required for such purposes as coaling and watering locos on route, detaching and attaching wagons at stations, hot axle boxes, engine failures, etc. In practice, however, it is found that if more than twenty-four trains a day have to be run in each direction, special arrangements must be made, such as running all trains in one direction for a certain number of hours and all in the other for another period; coupling two empty trains together, etc. This "convoy" system of working may also be used to increase the capacity of a line whose stations are more than twenty minutes apart. In France convoys of six trains were successfully worked over 15-mile sections. In this case, however, it is essential that all stations shall have sufficient sidings to accommodate all the trains of a convoy at the same time.

The importance of this crossing station question can be gauged by the Russian experience in their war with Japan. At the beginning of the war they were only able, owing to the vast distances between crossing stations, to run three military trains a day in each direction, and over 100 miles of the Circum-Baikal line was still unfinished. A great feat of railway construction completed the Circum-Baikal line in seven months. By the addition of some

340 * crossing stations they were enabled to run twelve military trains a day in each direction before the end of the war, which found them maintaining an army of 1,000,000 men over 5,000 miles from their base.

This, however, was before the days of aircraft, and it would not be safe for an army depending on a single line to reckon upon more than an average of twelve trains a day each way, when engaged in hostilities against a first-class Power. The "Manual of Movements" puts the figure as low as eight trains a day in each direction.

Of these eight or twelve trains a day, some may have to be reserved for civil requirements, so as not to strangle the economic life of the country. Other timings may have to be devoted to ambulance trains, reinforcements and the like. From such considerations can be calculated the number of trains which may be available for purely supply and maintenance purposes, provided always that the technical equipment of the railway and its *personnel* are equal to the demands liable to be made upon them. In France the proportion of military trains was: food 40 per cent., ammunition 20 per cent., reinforcements 13 per cent., R.E. stores 9 per cent., roads 9 per cent., various 9 per cent.

(iii) *Station Facilities*.—It is not too much to say that in some theatres of war, the quantity of water available will outweigh all other considerations. Enough water may not be available in the wells or other sources of supply to run what would otherwise be the maximum number of trains: 60 gallons for each engine on each train per mile is a fair average figure, to which must be added 2,000 gallons an engine a week at engine sheds for washing out. When conditions allow, watering stations should be provided every 25 miles, with storage equal to the consumption in 24 hours.

On the Sinai Railway the water difficulty was overcome by piping water from the Nile for over 200 miles. Potential theatres of war can readily be imagined where the question of water will be the sole factor in deciding the scale upon which military operations can be undertaken, and even whether serious operations are possible at all.

No doubt oil-driven locomotives, on some such principle as the Diesel, will do much to reduce the difficulty of water in the future, and the French are said to be busy over this question, in connection with their projected railway across the Sahara.

(iv) *Engines and Rolling Stock*.—It is very seldom that the peace

* 124 on the Siberian Railway, 116 on the Trans-Baikal, and 100 on the Chinese Eastern Railway.

equipment of a railway will meet the demands made upon it in war, owing to the huge increase of traffic which inevitably takes place. The traffic over the French Nord Railway increased by 200 per cent. during the war, and this led to a great shortage of engines and rolling stock, which could only be made good from other countries outside the area of war. Such rolling stock, however, had usually to be modified before it could be used on French systems. In England there are a multitude of different "loading gauges" (or hoops through which all trains must be able to pass), so that wagons which can run on one system cannot always run on another. There are also different systems of applying the brakes, such as the Vacuum and Westinghouse, which entirely prevent stock being interchangeable, until unified. Variations in couplings, springs, etc., all make English rolling stock as unsuitable for war as possible, but much of this is being put right under the recent scheme of amalgamation.

The number of engines required may vary from one for every mile of track to one for every $2\frac{1}{2}$ miles, depending on the traffic offering. As for wagons, at least one a mile for each pair of trains a day will be required; 3,200 wagons, for instance, would be wanted to run 16 pairs of trains over a 200-mile section.

USEFUL LOAD OF A TRAIN

(i) The amount of supplies and ammunition which a train will carry is clearly the weight of train which one or more engines can haul, less the weight of the rolling stock.

The draw-bar pull which an engine can exert depends on the weight on its driving wheels, and its ability to maintain steam with the quality of coal and water available. On French military railways, it is assumed that an engine can continuously exert a pull equal to one-seventh of the weight on its driving wheels. A simple practical rule is to say that an engine can pull a load up a gradient of 1 in 100, or steeper, equal to a figure in tons arrived at by multiplying the weight on its driving wheels by a tenth of the denominator of the gradient. For instance, an engine with 40 tons on its driving wheels should, up a 1 in 50 grade, haul behind the tender 40×5 , i.e. 200 tons. Up the Quetta bank engines with 70 tons adhesion can pull 160 tons. The maximum grade is 1 in 25, uncompensated for curvature, or 1 in 23 virtual.

If a second engine pushes behind, the load can be approximately doubled, but if the second engine pulls in front of the first, or

"double-heads" the train, the extra load will only be some 60 per cent.

Here again the question of water is of supreme importance. If, for instance, one-third of every train has to be devoted to carrying water for its engine, there is always a probability that more of the train must be devoted to water for the troops themselves. It may thus well be that less than half the theoretical capacity of the train is available for supplies and ammunition.

(ii) *Gauge*.—No railway of gauge smaller than metre can be considered seriously as a military line of communication, but the metre gauge itself is quite satisfactory, provided it is equipped on the most up-to-date scale. For instance, there are in use on the Uganda Railway (metre gauge) heavier engines than are to be found on express trains in England.

Whatever the gauge found in a country may be, any extensions carried out in war should be of the same gauge throughout. Although economy may suggest, and even dictate in peace, narrow-gauge extensions to broad-gauge railways, such changes of gauge would be fatal to large operations in war. Not only do they mean that every article intended for the front has to be transhipped, in itself a great waste of time and labour, but also that the transhipping station provides the enemy with a perfect stationary target for his bombers. It follows that the narrow gauge should be replaced by broad gauge as soon as funds allow.

Experience shows that a narrow-gauge railway, i.e. less than metre gauge, requires five or six times the traffic and maintenance staff as a normal line to move the same tonnage. It was the considered opinion of all the belligerents after the Great War that narrow-gauge railways are only useful for supplying the front line in position warfare, and for use in dépôts behind the front. If a double track of narrow-gauge line is built, the earthwork required would be enough for a single broad-gauge line (whose carrying capacity is much greater). A narrow-gauge line might barely succeed in maintaining one division. It is limited by the low axle loads of the engines, and by its low average running speed.

The gauge of a line has a definite bearing on the increase of engines and rolling stock which war inevitably renders necessary. For instance, Indian railways could only look to Spain or South America to supplement their rolling stock on the 5 ft. 6 in. gauge. On the other hand, the 4 ft. 8½ in. gauge is to be found on about two-thirds of the world's railways.

(iii) *Truck Loading*.—Of the total or gross load of a train, only

a part is useful load, since the weight of the trucks must be deducted. The weight of a truck depends to a certain extent on the gauge, but may be assumed to be one-half of the weight it will carry.

In England the average load of 10-ton trucks in peace time is barely three tons, in the case of general merchandise, but a military railway can expect to load 10-ton trucks to an average of from five to seven tons, if those concerned realize the supreme importance of loading to capacity. Maximum loading is one of the chief factors in economizing wagons. (Other factors are rapid loading and unloading to ensure quick "turn-round.")

Of some supplies, such as bread and meat, it is not possible, owing to their bulk, to put ten tons into a 10-ton truck. For purposes of preliminary calculations, therefore, it is safer to take only a half of the gross weight of the train as the weight of its contents. If, then, we have a mountain railway, up which, for the sake of example, two engines can pull and push 400 tons, and the equipment of that railway will allow 12 trains for purely military purposes being run each way in the 24 hours, that railway can maintain a force whose daily wants do not exceed 12×400 divided by 2, or 2,400 tons. This would be enough for six divisions, with the necessary non-divisional and ancillary troops. This is based on the rough rule that a division, with its proportion of other troops, needs 400 tons a day. Such a figure was of course greatly exceeded in France during days of intensive bombardment and fighting, when daily requirements sometimes rose to 1,000 tons a division.

To supply and munition such a force year in and year out, there is no known substitute for a railway, and to attempt to do so by any other means is as surely to court disaster as we did in Mesopotamia. Lord Kitchener realized this truth. No governmental interference or importunity could force him into a premature advance on Khartum. He waited for his railway.

TROOP TRAINS

Apart from the questions of supply and maintenance, railways are of value to an army in that they may be able to save the troops a great deal of arduous marching, but is by no means certain that they can always do so, as the following considerations will show.

The number of vehicles composing a train is limited, as already explained, by the power of the engines, and the gradients

encountered. On the Continent troop trains are made up to about double the length that is possible in England. This is because the continental loading gauge is larger than ours, and therefore allows the use of more powerful engines. Even on the Continent, 40 trains are required to move a division at war strength, with its first-line transport. If, then, no more than 12 trains can be run for military purposes in the 24 hours, it takes over three days to move one division.

It can hardly take less than a day to collect the necessary rolling stock to start the move, so that no time is saved by railling a division over a shorter distance than is represented by a four days' march, say 60 miles. When, however, the division is once entrained, it can travel 360 miles a day, if the average speed of 15 m.p.h. is maintained.

(Before any troop movement by train is contemplated, it is essential to see that the necessary feeding and sanitary facilities exist along the route to be traversed. In tropical countries, the absence of ice on the train has been known to lead to unfortunate results.)

It is true that the Southern Railway, in the early days of the war, ran troop trains into Southampton Docks every ten minutes, but a perfectly organized railway, working under peace conditions, is a very different affair from a military railway working in the war zone. (For intensive suburban traffic, electric trains have the field all to themselves. Their rapid acceleration and magnetic brakes for stopping enable them to produce an intensity of traffic impossible to steam trains. For the return journey, the driver has merely to walk from one end of the train to the other. No turn-round of the engine and no stops for coal and water are needed.)

Entrainment and Detrainment.—The entrainment and detrainment of troops argues the existence of suitable platforms, from which horses, vehicles and *personnel* can be loaded and unloaded. The time taken to handle different arms of the service varies, but is seldom less than an hour, and may be very much longer. Loading platforms must therefore be entirely clear of the running lines or passing sidings, unless all the traffic of the line is to be held up until loading and unloading is finished.

This consideration leads to the fact that the ordinary passenger platforms as we know them in England are almost entirely useless for military purposes, even if their approaches can be made possible for first-line transport. Goods platforms alone are likely to be at all suitable for military purposes, and, unless these are long enough to

take a full train, shunting will have to be done. This generally means that part of the train must temporarily foul the main line, and even in peace this is one of the most common causes of accident.

An ideal military platform should be both clear of the main lines as above, and also be long enough to take a full train. It should also be "high level," i.e. at the same level as the floor of the vehicles. If, however, the high-level portion is long enough to take 20 trucks (about 140 yards) for vehicle and horse loading, the remainder of the train length need only have a low-level platform for *personnel*. On Indian railways the track is often quadrupled through stations, so that platforms can be built along sidings, thus leaving the main lines clear.

Platforms, whether high or low, must be wide enough to allow troops to march along them in fours, and still leave a passage way between them and the train. Twenty feet may be regarded as the minimum. In addition, platforms should be ramped down to ground level for their whole length to give easy access and rapid clearance facilities.

An example of what may happen if platforms are insufficient occurred in the Franco-German War. A station selected for the detrainment of a division had a platform only 40 metres long. The first train duly arrived and had to shunt several times before it could be emptied. Long before this was finished the second train arrived, and had to wait outside the station on the main line. The process went on until the main line was blocked for ten miles. The block took about a week to clear, and the troops were without food for that time, except for what they had with them and what could reach them in carts across country.

In the case of vehicles, these are best run up an end-loading ramp, and thence along the train itself to their ultimate position. This can only be done if the trucks are suitable, that is, their ends must be able to fold down over the buffers to form a continuous pathway for the vehicles. Such trucks are rare in England, but substitutes can be made from "flats," i.e. sideless trucks, with sleepers laid over the buffers.

The "Manual of Movements" specifies three hours both for loading and unloading each military train. This time includes bringing the train alongside the platform, pulling out, and leaving the platform entirely clear for the next unit. It follows that it is unwise to allot more than eight trains to be loaded up from one platform during the twenty-four hours.

The German intention to violate Belgian neutrality in 1914

was clearly indicated by the new railways, and particularly platforms, which they had recently built along the Belgian frontier. An American observer estimated the length of new platforms as at least fifty miles, and, unless as a gigantic bluff, these could have had no other object than the detrainment of masses of troops.

Portable ramps may be used as a temporary expedient for entraining and detraining horses and vehicles on sidings where there are no platforms, but the task naturally takes more time.

For unloading mechanized artillery there must be a ramp in the opposite direction to the loading ramp. Otherwise the guns will have to go off backwards—an operation which, though possible, takes much longer than running off ahead. Quick unloading is generally more urgent than quick loading, except during a retreat.

The importance of the military authorities being consulted as to the design of railway trucks, as well as in the actual location of the line, is well understood on the Continent. It would not ordinarily be possible to build during a war enough vehicles of a special type, such as tanks required in 1916. The Germans have a very useful type of "flat" with sockets all round to take stout posts. Enough posts can be put in round the load to prevent any of the latter falling out. The load can also be put in without having to be passed through a door, or lifted over the side.

Tactical Moves.—Up to a distance represented by two days' ordinary march, roughly thirty miles, troops movements by train are much easier to arrange. This is because the unit transport can go by road, and therefore only *personnel* have to be entrained. It is not, however, very likely that the necessary rolling stock for such a move would be available at short notice to meet a real emergency, such, for instance, as the forced march of the German 7th Reserve Corps from Maubeuge to stop the gap in their line north of the Aisne during their retreat after the battle of the Marne in 1914. Tactical trains are used chiefly for rapidly reinforcing threatened points of the line, withdrawing exhausted troops and the like. They correspond to moves by bus.

Ambulance Trains.—Not the least important rôle of a railway from the soldier's point of view is the speed with which it enables casualties to be cleared, and no one can fail to go more cheerfully into action if he knows that, if wounded, it will not take him a week to reach hospital. During the Great War French railways carried over $3\frac{1}{2}$ million casualties, averaging 300 per train.

The fate of casualties when no railway exists may be read in the report on Mesopotamia. Suffice it to say that the field hospitals

were full before the battle of Ctesiphon, and that we had over 4,000 more casualties in that battle.

INTERFERENCE BY TROOPS

A railway is a delicate machine, with a definite capacity for work, and it is as easily deranged by thoughtless or careless handling as any other machine. The staff in particular must have sufficient technical knowledge to prevent them asking the railway administration to perform impossibilities, and for this reason staff officers in continental armies used, before the Great War, to undergo a course of instruction in railway working.

The American Civil War abounds in examples, as do recent events in China, of what uninstructed interference can do to paralyse a railway. In both cases impossible orders given direct to subordinate railway officials led to such inextricable confusion that all traffic completely stopped, and sometimes weeks were taken in sorting matters out so that normal working could be resumed. The best simile, perhaps, would be that of a kitten playing with a skein of wool.

Interference is, however, usually unintentional, or due to ignorance of the effects with apparently harmless actions will produce. Past wars reveal some of the following examples. Keeping trucks under load, thereby blocking sidings, and locking up rolling stock which is urgently wanted to bring up fresh supplies, or supplies for other formations. Using wagons or passenger coaches as billets. Post Commandants or C.O.s of troop trains holding trains up, as, for instance, the Russian officer who kept a hospital train waiting three hours while his orderly went off for a couple of chickens. Fixing the site of depôts and railheads without asking the railway authorities if they were suitable. "Borrowing" railway material for other purposes. Using railway officers and buildings. Detaching trucks. Using, or running to waste, water intended for engines. Delay in entraining and detraining, thus throwing out the timetable. Taking off the brakes of vehicles standing on an incline, and letting them run away. (This has also been known to happen in peace.) Scraping muddy boots on the rails which, as in Mesopotamia, may bring trains to a standstill.

But perhaps one of the oddest instances of interference was that of a post commandant in South Africa who completely hung up traffic for twenty-four hours by refusing to let the railway use its own coal, because it formed an integral part of his defences. One

may, however, sympathize with the French colonel who blocked the line by refusing to turn his men out at night in a snowstorm, deciding that they would be much more comfortable in the train.

Construction of Railways.—If no railway exists in the theatre of operations, one must be built, for it is of no use to say "Let there be a railway."

The question then arises : how long will the railway take to build? There is no definite answer, which depends upon the nature of the country and the port facilities for putting the necessary material ashore. (The permanent way of a military railway needs 300 tons of rails, sleepers, fastenings, bridge material, etc., per mile, and the rolling stock at least another 100 tons per mile.)

In the absence of big bridges, such as that over the Atbara river in the Sudan (which took seven months to build), the speed of building a railway is governed by the amount of earthwork necessary. The time to complete the earthwork depends upon the amount of labour which can be put at the disposal of the railway construction agency. In very flat country, such as Mesopotamia or S.W. Africa, the speed of bringing up and laying the permanent way is the deciding factor.

Earthwork can generally be reduced by the use of steep gradients and sharp curves, since these expedients allow the line to follow more closely the natural lie of the land. The first, however, introduces the disadvantage that the carrying capacity of the line is reduced in direct proportion to the steepness of the gradient, and the latter has the effect of increasing the wear and tear on the engines and rolling stock. (In mountain railways the combination of steep gradients and sharp curves cannot be avoided, if the line is to be built at all.)

This, then, is one of the questions which the Higher Command may have to decide, whether they will have a railway with a moderate carrying capacity which can be built comparatively quickly, or whether they will wait for a line, which, while possibly taking twice as long to make, will have four times the carrying capacity. Such a question cannot properly be decided unless the Higher Command have the necessary knowledge of railway economics.

Some examples of railway construction in past wars may be useful as a guide. Probably the finest feat of railway construction in war was that of the Russians in completing over 100 miles of the difficult Circum-Baikal Railway in seven months. The Japanese in easier country (Korea) averaged just over $\frac{1}{4}$ -mile a day. In

perfectly flat country, S.W. Africa, our railway advanced at the average of $2\frac{3}{4}$ miles a day.

Destruction of Railways.—Since railways are the arteries of an army, it follows that their destruction must have far-reaching effects on the course of a campaign. There is no doubt that if the French had destroyed their railways in 1914 as systematically and thoroughly as the Germans did the same task in the autumn of 1918, the Germans would never have penetrated so far into France as they did in the early days of the war.

In point of fact von Kluck was never more than fifty miles from his railhead, and the centre of his Ourcq front was less than thirty. During the battle of the Marne, the Chauny line was extended to Noyon on the 8th of September, and to Compiègne on the 9th, only just behind his front.

On the other hand, we find the Germans largely relying on the destruction of their own railways in East Prussia to hold up the Russian advance. They estimated that if the Russians penetrated more than eighty miles, they would outrun their supplies. This is what the Russians did, with the result that they fell easy victims to the Germans in the disastrous battle of Tannenberg.

Continental railways have their bridges built with demolition chambers let into the piers, and on the lid of these chambers is cast, or otherwise marked, the charge necessary to bring it down. This serves a double purpose. First, it saves time in calculating and preparing a charge, and secondly, it ensures a great saving in explosive as compared with what would be needed if the charge were placed in demolition chambers drilled from the outside, on the spur of the moment. The Germans made great use of delay action mines, some of which did not explode till months after the Armistice. These form a very successful and unnerving means of destruction, and can be made impossible to detect.

Protection and Reconstruction.—It follows from the preceding paragraph that every endeavour must be made both to protect railways in war and also to reconstruct them at the earliest possible moment, when they get damaged.

For protection against attack from the ground as many as sixty men a mile may be wanted, and in future wars every train may have to carry its own anti-aircraft defence in the form of machine-guns mounted on open trucks.

Apart from the question of relative exposure to attack, the importance of defending particular features of a railway, such as tunnels, bridges, water supply, junctions, etc., depends on the time

which repairs would take if the enemy succeed in damaging them. Conversely, raiding parties should concentrate on damaging one large bridge or tunnel, rather than on doing a lot of petty damage which will take no time to repair.

At the outbreak of war, the Germans had some 26,000 railway construction troops, but these were very early found to be inadequate. Special units were then formed for such purposes as removing the debris of bridges, using special machinery, etc., while the repair of large bridges was ultimately put out to contract. The late war also emphasized the importance of railway troops having adequate road transport (as was also proved in the S. African War), so that the repairs of a damaged line could be put in hand simultaneously at several points. Unless such road transport is available repairs have to await the gradual advance of the repair train.

Alternative Forms of Transport.—No alternative form of transport can take the place of a railway in war as we know it to-day.

It may be as well, however, to examine the view that war can be carried on without a railway. It is probably based on the fact that English railways are fighting for their lives in the face of keen road competition. But it overlooks one fact, which is that in England the roads are already there to be run upon. Another consideration is that there are probably more first-class roads to the square mile than anywhere else in the world.

Far different would be the position if the road transport companies had to build their own roads before their services could start. They could not in that case for one moment compete with the railways, and this is borne out by the amount of railway construction still going on in undeveloped countries all over the world.

A railway is no more expensive to build in average country than a first-class road (such as will allow of two lorries passing) and its carrying capacity is infinitely greater. Lorries require at least five times the road space to carry the same load as a railway, and thus form a much better target for aircraft.

Motor transport is certainly of great value in undeveloped countries whose traffic does not yet warrant a railway, but its usefulness is confined to fair weather. No one can imagine motor transport giving good service in Mesopotamia during the floods, or along "kacha" roads in India during the "rains." An army depending on it at such seasons must withdraw or starve, whereas railways, though occasionally breached, give satisfactory service all the year round in every clime. Their chief enemies, fog and snow, hamper motor transport even more.

The true functions of motor transport in war is to act as the distributing agency of a railway from railhead onwards, up to a limit of from forty to eighty miles, according to the state of the roads or country over which it has to work. Here again peace time manœuvres are misleading. Is the necessary petrol forthcoming in war? Have the railways enough tank wagons to carry it to the front? The answer at present is most certainly "No." A few weeks' trial with a miniature force, and when the problem of ammunition supply does not arise, is no guide to the vast quantities of petrol which a real army will need in war. To try and solve an army's transport problems with motors is like trying to run London's bus services with touring cars. The volume of traffic makes it impossible.

Other forms of transport, porters, camels, mules and the like, all suffer from the same limitation, namely, that they consume each day for their sustenance an amount equal to a tenth of their load. This limits their radius to a four days' march, since they both have to leave some at least of their load at the forward dump, and get back again to their starting point.

For small punitive expeditions in desert, mountainous or bush country, such transport is sometimes the only form possible, but the forces engaged bear little relation to modern war.

CONCLUSION

Railways are shown by military history to be the very arteries of an army in war, and just as the human body is dead unless the blood circulatory system is functioning, so is an army an inert and helpless mass without its railway. In spite of recent development in motor transport, Kuropatkin's opinion is still true: "We were glued to the railway, and could not move away without risk of being left without supplies."

This being the case, it behoves every soldier, who takes his profession seriously, to study the working and limitations of railways in war, and to continue to do so until, if ever, railways cease to play a predominant part in strategy.

AIR PHOTOGRAPHS AND THEIR MILITARY USES

BY CAPTAIN A. C. DUFF, M.C., R.E.

INTRODUCTORY

THE subject of air photography may be said to lie in a "no-man's-land" between the Army and the Royal Air Force; for while the taking of the photographs is entirely the business of the Royal Air Force, their use when taken is almost entirely the business of the Army. Not very much help is to be obtained from the manuals of the two services, for in none of them does air photography receive more than passing reference.*

It is also a subject particularly formidable to most officers because of the intricacy of its technical aspects. Matters such as the mechanism of an air camera or the plotting of a map from air photographs require prolonged study before they can be really mastered; but it is a mistake to confuse the use of any process with a complete understanding of its nature, and the greater part of the uses and problems of air photography can be readily followed by an officer who has no knowledge whatever of its technicalities.

It is for such officers that this article is written. An attempt is here made to set out the present position of air photography, and the problems which await solution, without touching at all on those aspects which are necessarily the concern of the specialist. In many fields of technical research it is often advanced that the tactician is waiting on the technical expert; e.g. when the technical expert can produce a really good portable R/T set, then the tactician will put forward various changes in the tactical employment and organization of the various arms. But in the case of air photography the situation is reversed; the technical expert has already produced equipment such as we have never had to our hand in war-time, but the tactician has not yet decided how this new equipment is to be employed.

* This article was written before the publication of the *Manual of Map Reading, Photo Reading, and Field Sketching*, 1929, and the *Manual of Air Photography*, Part I.

No apology appears to be needed for trying here to set out the present position. It can clearly be an outline only, and in very general terms. There is little "common doctrine" on which to work, and it may be taken that where facts are stated they are correct, but where opinions are put forward they are those of the writer alone.

PART I.—METHODS OF AIR PHOTOGRAPHY

1. *History and Development.*—It is only necessary here to give a very brief account of the steps by which the science of air photography has reached its present position.

Even before the war experiments were being made in taking photographs from kites, from balloons, and from aeroplanes. The cameras used were hand cameras, held by the observer over the side of the machine, and they suffered from the drawback—among many other drawbacks—that while it was possible to take a single photograph of any required point it was not possible to take a series of photographs covering an area. The observer could never tell whether he was, in fact, pointing the camera vertically downwards and whether in consequence any photograph would connect on to the one he had last taken.

Early in the war the hand camera was replaced by a camera fixed in the fuselage of the machine. While this method solved the difficulty of pointing the camera vertically downwards—for when the machine was flying level the axis of the camera was *ipso facto* vertical—it gave rise to other serious troubles, of which the most important was suspension. The frame-work of a machine in flight vibrates with the engine, and a camera attached directly to the fuselage shares this vibration. In so far as the vibration movement is vertical it is of no consequence, for an up-and-down motion will not visibly affect the photograph; but the horizontal component of the vibration, moving the plate from side to side, results in the photograph being no longer "sharp."

This difficulty was overcome by interposing between the camera and the fuselage a mounting of wooden frames connected by bell-crank levers in such a way that all horizontal movement was translated into vertical movement and the photograph was consequently unaffected.

At the end of the war the standard camera for vertical photography was the type known as the P.7. This is a camera taking a 5-in.×4-in. plate. Eighteen plates are packed in each magazine,

and magazines can be changed in the air. The focal plane shutter is operated by means of a Bowden wire from either the pilot's or observer's cockpit. When the exposure has been made the exposed plate is passed through the camera and a fresh plate brought into position by a lever worked either by hand or by "power," the "power" being supplied by a wind-vane fixed outside the fuselage and driven by the slip-stream. Lenses of differing focal lengths, varying from 4 inches to 20 inches, can be fitted. The length of exposure can be altered by adjusting the width of the slit in the focal plane shutter.

This camera is efficient and reasonably reliable. It is now regarded as obsolescent, but it still exists in the service in larger numbers than any other type.

One of its inherent drawbacks is the changing of magazines. The camera is fixed in the fuselage behind, and below, the observer. and the changing of magazines has consequently to be done by the observer. In war the observer is an air gunner whose first duty is to protect the tail of the machine from enemy air attack. In order to change a magazine of photos he has to plunge his head and shoulders in beneath the top of the fuselage, and while he is thus employed the tail of the machine is left unguarded.

When "obliques"—photographs taken at an angle to the horizon—are required, the P.7 camera can no longer be used. "Obliques" are taken by the observer with a hand camera, the P.14. This camera takes the same size of plate as the P.7, but each plate has to be loaded separately. The observer stands up, holding the camera to his shoulder, and takes the photograph over the side of the machine; while the pilot, in order to make this possible, throttles down the machine, thus reducing the air pressure, and manœuvres it so that the observer gets a clear view of his target. To get good "obliques" it is essential that pilot and observer should have worked together and should understand each other's methods.

Air cameras differ from other cameras in certain important respects.

- (a) Strength. The air camera must be strong enough to withstand vibration and rough handling.
- (b) Fixed focus. The object to be photographed is always at such a distance from the camera that the rays from it may be considered to be parallel and consequently no focussing is necessary.
- (c) Speed. When the photograph is taken the camera is moving at great speed in relation to the earth's surface,

and therefore the exposure must be brief and the plate very "rapid." In practice the maximum exposure used is about $1/50$ of a second.

2. *Present Equipment.*—Since the war great progress has been made in the photographic equipment of the R.A.F. The most important change is the introduction of a film camera to replace the P.7, and it is hoped also the P.14 plate cameras.

The type of film camera now in use is known as the F.8. One F.8 camera has been issued to each squadron. This camera has many material advantages over the P.7.

- (a) Capacity. Instead of a 5-in. \times 4-in. plate each negative has an area of 7-in. \times 7-in.; and while a P.7 magazine contains only 18 plates, a F.8 magazine contains a film of 100 exposures. This does away with the drawback of frequent changing of magazines, and gives a much increased area of ground which can be photographed in a given time. It also simplifies the problem of storage of negatives, for the film, area for area, is only a fraction of the bulk and weight of plates.
- (b) Construction. The P.7 camera is a complete mechanism. When any part of it goes wrong repairs can only be carried out by a skilled man who is intimately familiar with the camera. The F.8 camera is built up of a series of independent units. When any part goes wrong, that unit—say the instrument box—can be removed by an unskilled man, and a new instrument box substituted. The damaged box is sent away to the Repair Shop or Base, while the camera, ready for use, stays with the squadron.
- (c) Adjustment. The F.8 camera can be levelled on its mounting while in the air. It can also be rotated on its mounting so as to allow for the angle of "drift," i.e. the angle between the fore-and-aft axis of the machine and its line of flight over the earth.
- (d) Speed of production. Every negative taken has to carry upon it certain items of information; the unit taking the photograph; the serial letter and number of the negative; the date and the hour; the map reference; the focal length of the lens; and the altitude of the machine.

When the P.7 camera is used all this information, known as "titling," has to be written by hand upon each plate; more, it has to be written backwards, in order that

it may come out correctly on the print. Even a skilled man will take two or three minutes to "title" each plate. With the F.8 camera the only writing that has to be done is the map reference. All the remainder is provided by a series of instruments—altimeter, watch, etc.—placed in the body of the camera. As each exposure is made these instruments are photographed on to the edge of the negative, and the information required is obtained by reading the figures they record.

- (e) Use for taking "Obliques." A mounting has now been devised by means of which "obliques" may be taken with the F.8, thus superseding the P.14 camera. This mounting allows the camera to be swung sideways until the lens points through an aperture cut in the side of the fuselage and should make the process of taking good "obliques" comparatively simple, instead of exceedingly difficult as it is at present.

The apparatus used for developing and printing is too complicated to be described here. A film can be developed, fixed, washed, and dried, in less than an hour, and the output of the contact-printing machine is very approximately 800 prints an hour. This equipment is designed to pack into a lorry and trailer, which carry in addition the marquee, dark-room (of black silk), and stores of all kinds required by the Squadron Photographic Section.

3. *Organization.*—The photographic organization of the R.A.F. falls into two parts, the organization within the squadron and the organization in rear of the squadron. The organization within the squadron—i.e. the Squadron Photographic Section—is in existence, and there is little divergence of opinion as to how and when it should operate. The organization in rear of the squadron—i.e. Wing or H.Q. units—does not at present exist, and what form it should take in war, or whether indeed it would be required at all, are matters now under investigation.

The Squadron Photographic Officer is a Flying Officer or Pilot Officer who, in addition to his other duties, supervises all the photographic work of the squadron. Every officer sent to an Army Cooperation Squadron is trained in taking photographs, and it is not intended that photography should be done by the Squadron Photographic Officer himself. His business is to give the pilot his task, and to see that it is carried out correctly.

An important part in photography is played by the Squadron Intelligence Liaison Officer, or I.L.O. The I.L.O. is an army

officer attached to the squadron, and his duties are laid down in the training manuals of the services. When a demand for photography reaches the squadron it is the duty of the Squadron Photographic Officer and the I.L.O. to prepare in conjunction a photographic programme for the approval of the squadron commander. The programme will give the number of machines and of flights required, the height at which the photographs are to be taken, the cameras and lenses to be used, etc.

When the photographs have been taken it is the duty of the I.L.O. to "plot" them. "Plotting" consists in identifying on the map the area covered by the photograph, marking the map reference and the North point on the photograph, and recording on the map the area which the photograph covers. With a straightforward series of vertical photographs this process takes something less than two minutes per photograph.

As soon as development is completed in the Squadron Photographic Section a print of each negative is taken to the I.L.O., who "plots" it, and returns it to the Photographic Section with the map reference marked on the back and the North point on the face. The "titler," with the plates or film in front of him, transfers this information on to the negative, and thereafter all prints made from that negative will have the map reference and North point marked on them.

To "plot" photographs with speed and accuracy requires a certain amount of practice.

The war strength of the Squadron Photographic Section is ten men. Thus there is obviously a limit to the amount of printing it can do in any given time in addition to the preliminary development. When development is finished, and until more undeveloped plates or films arrive, the greater part of the Section can be employed on printing, and the rate at which it can turn out prints is on an average about 400 prints an hour. This figure will fluctuate greatly, depending upon the quantity and quality of the water available, the type of negative, the team-work of the Section and other incalculable factors, but in any case it appears that if a large distribution of prints is required in a short time the rate of production from the Squadron Photographic Section will be insufficient.

It remains to be considered how the work of the Squadron Photographic Sections may be supplemented so that such a demand can be met, and the first difficulty is to discover what the maximum demand in mobile warfare is likely to be. Various estimates have been prepared of the number of prints that might be demanded

by a Corps for an operation about to take place after a pause of 48 hours, but there is no common doctrine on the subject and opinions differ very widely. The highest number suggested is 40,000 prints, but even if such a printing was made it is doubtful whether sorting and distribution could be carried out in the time. Another estimate is 7,500 prints, and this is probably nearer the mark, but until some finality is reached on the point it is difficult for the R.A.F. to proceed with their side of the problem.

Certain photographic trials were carried out in the summer of 1928 by H.Q. 22 Group, R.A.F., to try to discover what photographic organization would be required in war in rear of the squadron. It is unnecessary to describe the various ideas which were tried and found unsuitable, but as far as the trials have gone at present the recommendation was in outline as follows. Squadron Photographic Sections, somewhat reduced in size, should undertake the maintenance of the squadron cameras, all development, and a limited amount of printing. Behind them there should be a Wing Printing Section, which would do printing and nothing else. Thus if the distribution demanded is small, and the Squadron Photographic Section is not otherwise busy, the prints would be done in the squadron; but if the distribution demanded is large, or the Section has other work in hand, the "titled" negatives would be sent down to the Wing Printing Section and the printing would be done there.

The correct establishment for this Wing Printing Section cannot be determined until the Army can state a maximum demand for prints in a given period.

It is perhaps worth trying to provide an answer to the question: "How long does it take to produce air photographs?" In those terms it cannot of course be answered, any more than the question: "How long does it take to send a message through Signals?" but certain figures can be given. If one particular photograph is given complete priority over all other work it can be developed, and a single print taken from it in something less than 40 minutes. If the photographs of an area requiring, say, 50 negatives are similarly given priority, one or two prints off each negative should be ready for despatch about four hours after the machine lands. The time taken will clearly increase with the number of negatives and the number of prints required off each of them. The bottle-neck in the process will usually be the I.L.O's office; he cannot "plot" faster than a certain speed, and unplotted photographs are useless.

PART II.—THE MILITARY USES OF AIR PHOTOGRAPHS

1. *Intelligence Uses*.—The first duty of the Intelligence Section of the General Staff is : “ to collect, collate, and distribute information about the enemy and the theatre of war.” One of the principal sources from which this information is derived is the air photograph.

It is possible to photograph the whole enemy system from end to end ; his base depôts, regulating stations, and railheads ; parks of transport and dumps of ammunition and other stores ; batteries and field defences ; hospitals, aerodromes, and signal communications. From such photographs an immense amount of information may be extracted.

To extract this information, however, requires a considerable amount of knowledge and of practice, for the appearance of much of this detail as seen on a photograph has no relation to its normal appearance as seen from the ground. A battery in action, for instance, bears no resemblance to the peculiar and distinctive markings which on a photograph indicate its presence. To do this work satisfactorily needs not only the ability to recognize at sight what the various markings mean, but also sufficient knowledge of the enemy's organization and tactics to be able to form an intelligent picture of what his tactical and administrative “ lay-out ” is likely to be. It is to this branch of the subject that the unpleasant word “ interpretation ” may fairly be applied ; to style the reading of ordinary topographical detail “ interpretation ” is as out of place as it would be to speak of the “ interpretation ” of maps. “ Interpretation ” may perhaps be defined as the art of recognizing on a photograph by their distinctive appearance the marks made on the ground by military activity.

Objects such as men, machine guns, or even guns and wagons, are impossible to pick up on a small-scale photograph, and their presence is only indicated by the marks they make on the ground. These marks are of two kinds ; tracks, made by the extended occupation of an area ; and digging.

It follows that “ interpretation ” will give the best results in position warfare, when units remain in the same position for weeks, months, or even years, and dig incessantly ; and no results in peace-time training, when units are constantly on the move and are usually forbidden to dig. The results obtained in mobile warfare will be somewhere between these two extremes.

During the war "interpretation" reached its zenith. The German defences were photographed at intervals of a few days, and by comparing each set of photographs with the preceding set every piece of work that he put in hand was at once recognized and duly transferred to the map. Many illustrations of this period survive, and they form a record of what results can be obtained from "interpretation" during periods of position warfare such as was witnessed in France and Belgium between 1915 and 1918.

In peace-time training the practice of interpretation is almost impossible. Units do not remain for any length of time in one place, and they do not dig. There is also the difficulty of skeleton enemies; flags representing a company, or single guns representing a battery, cannot convey those impressions to the camera, and the system of supply and maintenance usually bears no relation to the procedure of war.

Somewhere between these two extremes lies mobile warfare, and it is for mobile warfare that the army is training. Under mobile warfare conditions what results will interpretation give us? Undoubtedly more than in peace-time training; undoubtedly less than in position warfare; but to arrive at a more exact estimate than this is a matter of great difficulty.

Data upon which to work are practically non-existent. It is true that during the war photographs were taken under conditions approximately to those we require; e.g. in Palestine and in Mesopotamia. Of such photography, however, all that now survives is the photographs themselves, and, unfortunately, it is just under such conditions that a photograph by itself, unaccompanied by any exposition of what it illustrates, is of almost no value. One requires to know not only the nature of the detail shown on the photograph, but the tactical situation in which that detail was framed, and how the very important factor of time worked out in that particular instance; what period of time passed between the taking of the photograph, its examination, and the communication to those concerned of the information which it contained.

Attempts have recently been made, both at home and abroad, to stage small tactical exercises in order to provide data of this kind. Under peace-time conditions it is possible to arrange for photographs to be taken at varying scales and different times of day, and subsequently to make an instructive comparison of what can be detected on the photographs with what was actually taking place on the ground.

2. *Topographical Uses.*—For purposes of peace-time training in

the United Kingdom the one-inch map is taken for granted. It is always available and it is always reasonably up-to-date. But it must be remembered that the proportion of the earth's surface which is mapped at this scale is exceedingly small, and that in the event of a campaign anywhere outside Western Europe we must be prepared to work on very small scale maps supplemented by such large-scale maps as we are able to prepare on the spot.

A consideration of the possible theatres in the Near East and Far East in which a British force is likely to find itself engaged will show that though they are all relatively badly mapped they are also distinguished by a comparative regularity of climate. In Western Europe, where maps are excellent, the climate is such that there are only about 100 days in the year on which air photography is possible, and only about thirty days on which really good photographs can be obtained ; but in the possible theatres of war, where maps are bad, photography is comparatively easy on account of the greater regularity of the climate. Maps and air photographs are complementary means of studying the ground, and thus when the former fails us the latter is able to take its place.

The air photograph may be used in two ways for the study of ground. Either the prints may be studied directly, or a map may be made from them.

(a) Air Survey. The process of making a map from air photographs is strictly technical, and it is not proposed to enter here into any detail of how it is done. (The *R.U.S.I. Journal* of February, 1929, contains an article on the subject by Colonel H. St. J. L. Winterbotham, C.M.G., D.S.O.) Maps can now be made from air photographs with great speed and with a degree of accuracy sufficient for artillery purposes. The difficulty lies in the very high standard of photography necessary.

If a map is to be made rapidly and accurately from air photographs it is essential that when the photographs are taken the machine shall be flying straight and approximately level, and that each photograph shall overlap on to the one preceding it by not less than 50 per cent. To keep a machine level in the air is far from easy, nor are the machines with which Army Cooperation Squadrons are equipped primarily designed for the purpose. An ordinary pilot, flying under peace conditions, will require some practice before he can produce photographs good enough for the surveyor. Under war conditions it will

be more difficult, for a machine flying straight and level will render itself particularly vulnerable to attack both from anti-aircraft artillery and from enemy machines.

A further objection to the use of Army Cooperation machines for obtaining such photographs is the undesirability of taking these machines from their normal duties and sending them off to photograph distant areas. The Survey Directorate will presumably endeavour to map in advance those parts of the theatre of war which are expected to become later of tactical importance, and these may be far away from the aerodromes at the moment in use. The radius of Army Cooperation machines is comparatively small, and even if the task is within their powers neither the formation for which the squadron is working, nor the squadron commander himself, is likely to accept such a demand without protest.

From these and other considerations it seems probable that the photographs required by the surveyor should be taken by Day Bombing Squadrons rather than by Army Cooperation Squadrons.

The Day Bomber has a much greater radius ; it is a more suitable machine for photography ; and there is less departure from its normal tasks and normal area. There is further the important point of the training of the pilot. A pilot in a Day Bombing Squadron is fully trained in bombing and in the use of bomb-sights, and the problem of placing a machine in such a position in the air that the released bomb will strike a certain point on the ground is very much the same as the problem of placing a machine so that the photographic plate when exposed will cover a certain area of the ground. The parallel must not be pressed too far—the latter task is the more difficult—but the man who is fully trained in one will be able to adapt himself to the other.

The picture that one is inclined to paint of air survey in mobile warfare is that of the Day Bombing machines photographing those areas over which the General Staff anticipate that operations may take place. From these photographs the Survey Directorate prepare plates of large-scale maps. If the predictions of the General Staff come true these maps are ready to be printed and distributed. Meanwhile as the British force approaches

the areas in question the Army Cooperation Squadrons will themselves be taking photographs, and these may be used to bring the maps up-to-date by over-printing any detail, such as enemy defences, which the earlier photographs did not contain.

It is perhaps worth pointing out that the taking of such photographs does not entail a large call on machines or on flying time. As a rough guide a single machine on a single flight could photograph an area of about thirty square miles, given a skilled pilot.

- (b) Direct study of prints. This requires little comment. The only knowledge needed, other than that obtained by a certain amount of practice, is how to find the scale and how to obtain an idea of the relief.

If a map is available the scale of the print may be readily found by comparing the distance between known points. If there is no map the representative fraction of the print may be found approximately by dividing the focal length of the lens by the altitude of the machine. (Both these facts are recorded on every print.) It should be noted that the latter method gives the scale of the negative, and will only hold good for the print if the negative and the print are at the same scale ; i.e. if the print is a contact print.

A photograph is at a disadvantage compared to a map in that it contains no direct indication of the relief of the country. This disadvantage may be largely overcome by the use of the stereoscope. It is impossible to embark here on a description of stereoscopes or a dissertation on the principles of stereoscopy, but a stereoscope quite good enough for this purpose can be made of such a size that it can be carried in the pocket, and with its help a picture can be obtained which will show the ground in relief. No special camera or special photography is involved. The only essential is to have two different pictures of the ground to be examined. The accepted system of "strip" photography gives us these two different pictures, for if each photograph overlaps by 50 per cent. on to the one preceding it every point must clearly appear on two different photographs. Hence any pair of successive photographs will afford a stereoscopic view of the ground common to both of them.

A stereoscope can be employed by any man of average eyesight. Its use can be taught in an hour, and the extent to which relief can be seen improves steadily with practice.

PART III.—PROBLEMS AWAITING SOLUTION

In conclusion we may sum up the various questions to which answers are now being sought, and the various non-technical problems awaiting solution. Most of these have been already mentioned and discussed.

1. What is the maximum demand for photographs which a Corps is likely to make under mobile warfare conditions? How many negatives are likely to be demanded, and how many prints off each negative?
2. Given the answer to the first question, what establishments will be required for R.A.F. Squadron Photographic Sections and Wing Printing Sections in order that these numbers may be produced within the necessary time?
3. What value can be obtained from "interpretation" during mobile warfare?
4. By what type of squadron are to be taken the photographs required for making maps?

NEHEMIAH AND HIS DEFENCE SCHEME

BY BRIGADIER A. J. McCULLOCH, D.S.O., D.C.M.

EVENTS in Palestine and the dispute over the Wailing Wall call us to study the character of a particularly fine member of the Chosen Race—Nehemiah. Some Jews claim that the Wailing Wall takes us back to Solomon, but it is more probable that Nehemiah, or even a later architect, was the builder.

See him first, a little curly-headed captive Israelite, sitting among his elders weeping beside the waters of Babylon, mourning for the departed glories of Israel—"How can we sing the songs of Sion in a strange land?" See him later, a favourite courtier in the enlightened palace circle of Artaxerxes at Babylon: later again, the rebuilders of Jerusalem, outwitting in cunning the crafty Canaanite who planned his undoing: later still, the reformer of the social life of his people—helpmeet of the poor against the rich aggressor—guardian of racial purity, stepping in fearlessly to stop the evil of inter-marriage with the lower races of Canaan. He was unmarried, probably a eunuch, as was the fashion with the male members of the palace circle.

Dean Lyster, in *The Times* of the 2nd of September, drew attention to the re-enactment to-day of the situation of 2374 years ago.

Artaxerxes wished to remake a national home for the Jews. His efforts were bitterly opposed and resented by the Canaanite, or Arab, population. Nehemiah at his own request was sent to help the Jews. His work was hindered by Geshem, the Arabian, and others. Armed conflict between the Jews and Arabs occurred.

For Artaxerxes, read the Government of King George V; for Nehemiah read Sir Herbert Samuel; and for Geshem read the hidden hand behind the recent Arab disturbances;—and you have the situation to-day.

The building of the walls of Jerusalem was a distinct military operation, though the proceeding never apparently culminated in a pitched battle. What is of particular interest to the soldier is

this. The history of the operation is apparently taken from a military journal or war diary—or from a “defence scheme”—or from a volume of war dispatches. Dispatches and war diaries, as the soldier knows, are of doubtful historical value. Human nature being what it is, the writer is frequently more concerned with showing that he had made no military blunder, indeed had probably put forth a praiseworthy performance, than with adding to the treasure house of history, or with enlightening succeeding generations of soldiers regarding the pitfalls which beset them. In short, the officer who writes a dispatch is rather in the position of one who is asked by his superior for his reasons in writing. Frequently this is done as a wholesome corrective when the superior shrewdly suspects that there are no adequate reasons to offer. The junior is thrown on the defensive, and may be tempted to produce a somewhat inaccurate statement. So it is that as regards seeing truth through war dispatches, visibility may at times be poor. But, whatever the historical value of a military dispatch, or military record, there is no doubt that in most cases it is the basis of history where war and battles are concerned. So we often find military orders transcribed into military dispatches, and dispatches in turn transcribed into history.

The point of interest to the military student is that Nehemiah the historian records the story of the building of the Wall of Jerusalem (possibly the real Wailing Wall) as it would be told by one following the military train of thought of Nehemiah the commander. That train of thought runs on nearly the same lines as would that of the commander of to-day, when he makes his plan and frames his orders.

Let me tabulate this to make it clear :

NEHEMIAH'S ACCOUNT
(Nehemiah iv, 7-8)

(a) But it came to pass, that when Sanballat, and Tobiah, and the Arabians, and the Ammonites, and the Ashdodites, heard that the walls of Jerusalem were made up, and that the breaches began to be stopped, then they were very wroth.

And conspired all of them together to come and to fight against Jerusalem and to hinder it.

(Chap. iv, 9)

(b) Nevertheless we made our prayer unto our God, and set a watch against them day and night, because of them.

A POSSIBLE MODERN RENDERING
Information

(a) The Arabian Army is preparing to advance from Samaria.

(b) Our forces are working on the fortifications, and the present outpost position continues to be held.

NEHEMIAH'S ACCOUNT

(Chap. iv, 13)

Therefore set I in the lower places behind the wall, and on the higher places, I even set the people after their families with their swords, their spears, and their bows.

(Chap. iv, 15-23)

And it came to pass from that time forth, that the half of my servants wrought in the work, and the other half of them held both the spears, the shields, and the bows, and the habergeons, and the rulers were behind all the house of Judah.

They which builded on the wall, and they that bare burdens, with those that laded, every one with one of his hands wrought in the work, and with the other hand held a weapon.

For the builders every one had his sword girded by his side, and so builded.

And I said unto the nobles, and to the rulers and to the rest of the people, The work is great and large, and we are separated upon the wall, one far from another.

In what place therefore ye hear the sound of the trumpet, resort ye thither unto us: our God shall fight for us.

So we laboured in the work: and half of them held the spears from the rising of the morning till the stars appeared.

Likewise at the same time said I unto the people, Let every one with his servant lodge within Jerusalem, that in the night they may be a guard to us, and labour on the day.

So neither I, nor my brethren, nor my servants, nor the men of the guard which followed me, none of us put off our clothes, saving that every one put them off for washing.

The common expression runs: "How wonderful the way in which history repeats itself!" But it would be strange if it did not. Man's underlying nature alters little in 2,400 years. Given a similar environment and similar circumstances, similar action will follow. As an individual, man is a puzzle, but the more we group him the more the instinct of the community mind will work out its answer as in a mathematical problem.

A POSSIBLE MODERN RENDERING

Intention

The Commander intends to arrange the outpost position with garrisons in the commanding positions and reserves in the concealed positions.

(Note.—These were probably given in detail in the defence scheme.)

Dispositions

(a) The force will be divided equally as follows:

- (i) Working parties.
- (ii) Garrison which remains in a constant state of readiness.

(b) Command posts are allotted as follows:

(Note.—Division of the outpost position into sectors omitted, possibly as details were deemed uninteresting to the civilian reader of history.)

(c) Working parties will not put off their swords.

(d) In event of alarm the trumpet will sound the "Jericho" call at a rendezvous to be selected by the Commander. Working parties will then fall in at once and move there without delay.

(e) No troops will move outside the perimeter between tattoo and reveillé.

(f) Clothing and equipment will not be removed except for purposes of washing, which will be conducted in relays.

THE EXPEDITIONARY FORCE OF 1808

BY LIEUT.-COLONEL BAIRD SMITH, D.S.O.

THE proclamation of Joseph Buonaparte as King of Spain (9th of July, 1808) was to the Spanish nation the signal to commence its War of Independence with all the means at its command. The French were already firmly established in the country; and the conquest of Portugal, which the Spaniards had watched with surprising equanimity, was now seen to have been merely a first step towards their own subjection.

The British government was not unfamiliar with the conduct of oversea military expeditions; and at the moment one of these, under Sir John Moore, was lying in the roadstead of Gothenburg, while its commander vainly tried to explain to the mad King Gustavus the friendly nature of his visit. The opinion of Parliament was all in favour of intervention in Spain but was much divided as to what direction this intervention should take. A French army under Junot occupied Lisbon, and a Russian fleet lay in the Tagus, the Imperial Guard was in Madrid and two corps occupied San Sebastian and Pampeluna, with a third in Barcelona. A reserve of over 50,000 men was quartered in and around Bayonne; and the fact that Napoleon was temporarily at peace with all Europe, left at his disposal some 600,000 veteran troops.

One of his first measures had been to annex the pick of the Spanish regular regiments, and to order them to France, while yet the two nations were nominally allied; the remainder, disbanded, went to swell the new Spanish levies, under Castanos, Blake, Cuesta and others, or the guerilla bands that had already begun their systematic depredations on the French lines of communication. Of the irregular armies, that of Custáños in Andalusia was kept in being by supplies of arms, ammunition and money furnished by the Governor of Gibraltar, Sir Hew Dalrymple; and one of the first tasks of the commander of the British expeditionary force was to do the same for the other Spanish armies in the North, as well as for such Portuguese forces as might have been got together.

Revolts against the French occupation had early broken out in the northern provinces ; Valencia and Saragossa, centres of the popular movement, had so far baffled their besiegers. To the eager politicians at Westminster the time for intervention seemed ripe.

The troops on which the British government could lay its hands, apart from Sir John Moore's force of 10,000 still bottled up in its ships, consisted of some 9,000 assembled at Cork for a purpose not yet disclosed ; and a detachment from the Gibraltar garrison, about 5,000 strong, originally sent by sea to Cadiz to assist the inhabitants against a French naval attack. By scraping together what they could in England, the Government purposed another reinforcement of 5,000, or a total of nearly 30,000 men.

At the outset, this heterogeneous army, in no wise equipped, according to modern ideas, or even the practice of the time, for extended operations on the Continent, would seem to have been utterly inadequate to cope with the victorious, war-seasoned and overwhelmingly numerous Grand Army, under its redoubtable Chief. But in making their forecast of the strength required, British ministers estimated the new Spanish armies far too highly, both as to numbers and morale, and anticipated a sort of *levée en masse* of the population, to be brought about by the mere presence of British troops in its midst. The military situation appeared, too, to offer all sorts of opportunities for a sudden descent by sea, rapid disembarkation, followed by a lightning stroke at the vitals of the French armies ; and when, as the event proved, nothing resembling such fancied operations could be achieved, disappointment, in and out of Parliament, was loud-voiced and severely critical.

In reality, the equipment of its expeditionary force was such as, alone, might have brought the Government's project to nought ; a fact that was much stressed in subsequent debate. But to all critics, lay and professional, the Government's spokesman replied that the expedition " in every respect, and specifically in the proportion of cavalry and artillery, was perfectly competent to execute the service on which it was sent."

The first portion of the force to be dispatched was that at Cork ; this was placed under the orders of Sir Arthur Wellesley, and, so far as possible, mobilized under his directions. The cavalry accompanying this division was 200 strong, and for artillery there were eighteen field guns. When it came to buying, in the open market, horses for men and guns, there seems to have been

a dearth of good animals ; those put on board ship, according to Wellesley's own report, were later found to be lame, blind, aged or diseased. As to transport animals, no provision was made for them—perhaps the market in Cork was considered unsuitable—at least the country to which the expedition was going could hardly supply any beasts that were needed. Another explanation of this economy was later given in Parliament, when the question of the lack of sufficient cavalry was debated. "Good" horses, it was said, were considered unnecessary "to draw guns"; while "it was not supposed that cavalry was a proper description of force to send with these floating expeditions, which might be a long time at sea."* It was further urged that as, at Alexandria, Abercrombie had but 150 dragoons, and, at Maida, Stuart had none at all, therefore Wellesley's party of 200 mounted men was ample. And yet he was hardly embarked, before Ministers were picturing the complete scouring of the Spanish Peninsula.

The troops at Cork had, according to an eye-witness,† been confined on board ship for six weeks prior to sailing for Portugal ; so that perhaps the absence of horses was understandable. If the crowding of an expedition into transports for an indefinite time, while the place and hour of its disembarkation overseas had yet to be debated, was to be regarded as a normal proceeding, then the fewer animals on board the better for the health of every one.

At a time when the French armies, accustomed to live on the invaded country, had proved themselves capable of prolonged and rapid movement across the face of Europe, the British government's views of how to move and subsist its "floating expeditions" on land were vague and unformed in the extreme. Portugal, it was suspected, might prove an inhospitable land, incapable of furnishing the sustenance to which British soldiers were accustomed ; so that arrangements were made to feed the expedition from "victualling ships," which would not dump their stores on shore, but hover near the coast—an arrangement with which, fortunately, only the weather could interfere. This system, so long as the army itself hugged the sea-shore, would, it was expected, prevent the occurrence of any serious scarcity.

Transport for ammunition and intrenching tools, or for baggage, formed no part of the original equipment of the division first embarked ; animals and waggons no doubt existed in the Peninsula

* See "The Annual Register," 1809.

† See "The Recollections of Rifleman Harris."

—anyhow, the commander had this item added to his many other embarrassments. Fortunately in Oporto a kind of substitute Commissary-General was found in the person of its energetic Bishop. He had recently instigated a popular rising, and placed himself at its head; and though sharing to a great extent the distrust and suspicion with which the Portuguese regarded their British Allies, he promised assistance in the matter of animals and supplies. Somehow he made his people produce 150 horses, to replace those bought in Ireland now become useless, and held out hopes of 500 mules. To provide bread was beyond the powers even of a Bishop; the troops had to be content with biscuit from the "victuallers" in the offing. As to a liquor ration, the rough, sour country wine had to suffice them; and the season being hot, and the British soldiers thirsty, even this supply soon began to fail.

Far from assembling its whole expedition preparatory to commencing operations, the Government dispatched it in a series of instalments. Transport under sail possessing none of the calculability of steam transport, the times of arrival of detachments in the selected theatre could only be guessed; but a great deal of uncertainty would have been avoided by a preliminary concentration in British waters. First went Sir Arthur Wellesley, with the Cork division; his destination the coast of northern Spain, and his first business to get into touch with the Junta of Galicia, offer them his services, and encourage them with gifts of arms and money. He had a sort of choice of objectives; his instructions suggesting that he might "cut off, if possible" the French retreat from Portugal, or else attack them "in the Tagus." * He was informed that Sir John Moore's force would eventually join him, but he was not ordered to wait till it did; and he knew also of the reinforcements being sent from England and Gibraltar. Admiral Cotton's fleet lay off the Tagus mouth, shutting up the Russian ships therein, and available to help in any combined operation against Lisbon itself. Finally Wellesley was notified that two other general officers, senior to him, were being dispatched to the scene of action, each in turn destined to supersede him.

The selected eventual commander, Sir Hew Dalrymple, Governor of Gibraltar, received a general instruction to "expel the French out of Spain" *—not merely out of Portugal. The hopes of the British government rose high; French military power in Spain seemed to be rapidly crumbling. About this time came news

* See "The Proceedings of the Enquiry into the Armistice and Convention of Cintra, 1809."

of Dupont's defeat and surrender at Baylen, of Joseph Buonaparte's panic flight from Madrid, and the withdrawal of the French armies behind the Ebro.

In Wellesley the Government had a general who possessed its complete confidence ; could it now have given him a free hand, and the supreme command, he would probably have achieved a far-reaching success, at least putting Junot's army *hors-de-combat* for the duration of the war. But the cast-iron rules of seniority, applied as the expeditionary force grew in size and importance, exercised the most unfortunate influence on its operations. The one-time conqueror of Assaye and Argaum had the mortification of seeing the first of his two supplanters arrive on the field of Vimiera ; if not in time to claim credit for the victory, at least to mar its effects.

Later, while Sir John Moore was engaged in the second and more ambitious part of the undertaking, "expelling" the French out of Spain, and when the public had grasped the meaning of the terms of the Convention of Cintra, the Government was forced to convene a Board of Enquiry into the conduct of the generals who had negotiated that treaty. Thus Dalrymple, Burrard and Wellesley had to return to England, to explain their joint and several responsibilities to the Board ; leaving to Moore the completion of a task now become quite impossible.

The Board assembled in December ; the president being General Sir David Dundas, a fine old soldier, but chiefly remembered for his "Principles of Military Movements," the forerunner of all British drill books. The members, too, were all distinguished in their profession ; one particularly, Lord Moira (afterwards Marquess of Hastings and Governor-General of India), was already famous as Colonel Rawdon of the American War. Though all were doubtless aware of the political pressure which had compelled a reluctant Minister to convene them, the gallant veterans of the Board were not to be forced into offering up a military scape-goat. While sticking to their brief, to examine and report on the circumstances of the signing of the Convention, they could not refrain from a mild sarcasm concerning the superfluity of commanders. Thus : "considering the extraordinary circumstances under which two new Commanding Generals arrived from the ocean, and joined the army (the one during and the other immediately after a battle, and those successively superseding each other, and both the original commander within the space of twenty-four hours), it is not surprising that the army was not carried forward, until

the second day after the action. . . .” * They dismissed consideration of the Convention with the curt comment that none of its principal articles were objected to by “the five distinguished Lieut.-Generals of the army”; and went on to “most humbly submit our opinion that no further military proceeding is necessary on the subject.” *

With the storm of public indignation still raging, and Parliament about to meet, H.R.H. the Commander-in-Chief could not be satisfied with so lame a conclusion; he directed the Board to re-assemble, since, as his military secretary was instructed to write: “Your opinion upon the conditions of the Armistice and Convention of Cintra . . . has been altogether omitted.” *

Each member was now to answer two questions: first, whether he approved the terms of the Armistice of the 22nd of August, and second, those of the Convention of the 31st of August. The result was a majority of 6 to 1 in favour of the first, and of 4 to 3 in favour of the second; the minority in each case only objecting to some one or other of the articles, and not to the general purpose or tenour of the two instruments.

In the course of the Board's proceedings it became clear that both Burrard and Dalrymple had at the time considered Wellesley's whole operations as rash and hasty; they seemed to have suspected, not without reason, that he desired to finish the affair out of hand, before either of them could arrive. Especially marked was the imperfect sympathy between Dalrymple and his brilliant junior; who “seemed to be engaged in an enterprise planned by himself,” * yet had been recommended by ministers as worthy of being consulted “on all occasions.” It was, perhaps, only to be expected that Dalrymple, if he listened to Wellesley's advice at all, invariably disregarded it.

It will always remain a nice military problem, whether the wiser course would have been to follow up the enemy at once, after Vimiera, even though this might have meant another pitched battle, or to have waited a week, till the reinforcing army of Moore could be got into line, and the superiority of numbers become overwhelming. The members of the Board declined to commit themselves; they merely said that “on the evidence,” they could give no opinion whether a pursuit after the battle would have been “efficacious,” nor whether a forward movement on Torres Vedras was “expedient.” It was Burrard, riding up “on an indifferent

* See “The Proceedings of the Enquiry into the Armistice and Convention of Cintra, 1809.”

horse," from the shore to the battlefield, who actually stopped Wellesley from following up the retreating enemy ; while Dalrymple, who arrived next day, had just made up his mind to move, when Junot's *parlementaire* came to ask for a suspension of hostilities.

The crux of the Enquiry was whether this offer should have been entertained or refused ; and so far as the Board's combined opinion went, it merely emphasized the apparent agreement of the generals who consented to treat. But one member of the Board, Lord Moira, was decidedly of another mind. In recording his individual opinion on the Convention, he pointed out that Wellesley had stated that his original force was sufficient to capture Lisbon, that it had been augmented by 4,000 men just before the battle, and had only been partly engaged ; and since it had heavily repulsed "the whole disposable strength" of the French, he considered "the terms to have extricated Junot's army from a situation of infinite distress . . . and to have brought it, in a state of entire equipment, into immediate currency. . . ." * In other words, though he approved of negotiating, it should have been on terms of unconditional surrender.

The subsequent unpopularity of the Convention, and the furious denunciation of it in Parliament, seem to have inspired at least one of its authors with doubtful afterthoughts. A great deal of explanation and argument was offered to the Board by both Dalrymple and Wellesley concerning the Armistice. Wellesley, asked to sign the draft as Dalrymple's deputy (Kellermann having signed for Junot), had characterized it as "an extraordinary paper" ; to which Dalrymple had retorted, "it did not contain anything that had not been settled." * Still, Wellesley informed the Board that as Dalrymple had "desired" him to sign, his signature was a matter of form only, not making him responsible for the contents of the document. Why he made this reservation is not clear ; he had already admitted that he "cordially concurred in the opinion that the French should be permitted to evacuate Portugal." * Moreover, the question of his responsibility did not arise, since Dalrymple expressly accepted it in full. It would seem, however, that some of Dalrymple's criticisms rankled in Wellesley's mind ; so that he felt bound to inform the Board that he "had reason to believe that I did not possess his confidence ; nay, more, that he was prejudiced against the opinions I should give him." * Dalrymple's attitude, however, seems to have been at least correct

* See "The Proceedings of the Enquiry into the Armistice and Convention of Cintra, 1809."

throughout ; and he took occasion to protest to the Board against a newspaper slander, which " insinuates that I had torn the laurels from the brows of an officer who deserved the admiration of his country for a splendid victory ; and that I had compelled that same officer to sign an armistice which would for ever remain on record as a disgrace to His Majesty's arms." *

Burrard explained, with some emotion, that he hoped no one who knew him would attribute a lack of " forwardness " to him, in ordering the army to halt after the battle. Yet it is an open question whether, had the " indifferent horse " dropped dead before it reached the battlefield, things would not have gone better for Burrard and better for the success of the British army.

Parliament assembled on the 13th of January, 1809, three days before the battle of Coruña was fought ; and the debates in both Houses on the Peninsular adventure and on the findings of the Board of Enquiry had become increasingly heated when news of the retreat and re-embarkation of Moore's army, and of his tragic death, reached England. The expeditionary force, which was to have liberated both Portugal and Spain, had been, by the irony of fate, hunted back to its ships by an army that included the bulk of Junot's re-patriated divisions ! Votes of thanks were passed to Wellesley and the officers and men who had served under him and Moore, and a suitable eulogy made of the dead commander in both Houses. But in the Lords, one nobleman " could not refrain from expressing his indignation that such men and such resources as ours should have been utterly thrown away and lost by the total incapacity of those who had misdirected their efforts " † ; while in the Commons it was asserted that " the principal object of the expedition, notwithstanding the success of the British arms, had been completely lost in disappointment and disgrace." †

Without the assistance of a General Staff, or of expert military advice, it was only by painful experience that the British government could learn the business of conducting these seemingly simple oversea operations. As it was, an expedition with a limited objective, with insufficient equipment, was stretched to embrace the prospect of a great and dazzling success ; and but for the qualities of both leaders and troops, would have ended, not in partial failure, but in catastrophe. In fitting out the force, the

* See " The Proceedings of the Enquiry into the Armistice and Convention of Cintra, 1809."

† See " The Annual Register," 1809.

most elementary necessities were ignored or overlooked. Thus the commanders in the field, encouraged to press subsidies into the hands of Spanish "Juntas," were kept constantly short of ready money for their own requirements. The final instalment of troops under Sir David Baird, landed at Vigo, was immobilized until a loan of £8,000, from Moore, enabled it to creep forward towards its rendezvous.* It almost seemed as though the Government, tired of paying for everything in cash, intended its commanders to abandon the British custom of honouring requisitions in a friendly country, and to begin helping themselves at the expense of the inhabitants. Moore, with insufficient funds to purchase supplies for his advanced magazines, had to trust to a general assurance from the Spaniards that these would be forthcoming; and his transport services were so deficient that both he and Hope, as well as Baird, had to advance towards the point of concentration, at Salamanca, by dribblets. That under these circumstances the British army was extricated from its difficulties, escaped the snare set by Napoleon, and reached its ships, remains, with all due credit to Moore, a military miracle in which a fortunately intercepted French dispatch played no small part.

* See "The Peninsular War," by H. R. Clinton.

THE TERRITORIAL ARMY

SOME PROBLEMS OF A LONDON INFANTRY BATTALION

BY CAPTAIN G. HAYHURST-FRANCE, D.S.O., M.C., late the 60th Rifles

WHAT is the Territorial Problem ?

Colonel Franklyn * has opened the discussion on broad lines and Colonel Codrington,† speaking from the point of view of the County unit, has replied that the problem is not the same for all branches of the T.A. He rightly implies that the London unit has certain advantages over the County, namely relative concentration and the attraction of a headquarters club. The London battalion nevertheless has its own difficulties to face, the most important of which are :

(1) Recruiting.

(2) Training.

“ If we had more interesting training we should get more men, and if we had more men we could make the training more interesting.” The chicken and the egg : which comes first ? In the Territorial Army numbers on parade are proportional to the quality of instruction. Meanwhile recruiting remains at the same level in spite of anxious thought.

PROBLEM I.—RECRUITING

It has been said : “ It is a mystery why any man should join the Territorial Army.” Does not the key to attracting recruits lie in the solution of this mystery ? Different men join for different reasons, but in the case of the Londoner let us assume that his enlistment was prompted by the following :

- | | | |
|--|---------|------------------|
| (a) Patriotism, i.e. a feeling, probably inarticulate, that a chap ought to do something for his country | .. .. . | say 10 per cent. |
| (b) Ambition to be a soldier | .. .. . | 10 .. |
| (c) Need of a recreation or hobby | .. .. . | } 80 per cent. |
| (d) Need for comrades and good fellowship, prompted by his pal's company spirit | .. .. . |  |

* See *The Army Quarterly*, April, 1929.

† *Ibid.*, October, 1929.

(a) Patriotism requires a stimulus to make it a dominating factor. In 1914 London battalions were inundated with recruits. To-day the ideals of War-to-end-War, Anti-Militarism, Disarmament, Peace Pact, etc., are widely known, while the function of the Territorial Army to expand into the Citizen Army in case of need is not recognized.

(b) Is natural to most men at some time.

(c) Since the War the majority of big firms have organized clubs and provided sports grounds for their men. For the potential recruit there are further counter-attractions in cinemas, tea shops and amusements which can be enjoyed without the necessity of attending parades. Units that can afford to make their headquarters attractive can compete successfully for the recruit's leisure, but if soldiering as a hobby is to be made worth while, all parades must be interesting and progressive. He will want to get on with his soldiering.

(d) coupled with (c) is an important factor. The personality of the company commander has a direct effect on the number and quality of his recruits. This is a rock upon which any but a temporary cadre organization may split.

The ideal of making every man into a potential non-commissioned officer must be deferred until we can afford to reject good recruits of the soldier class. The middle course is to maintain the unit at all costs and give as much extra instruction and encouragement as is possible to the potential non-commissioned officer.

In some battalions the men subscribe towards the upkeep of their headquarters club and are able to enjoy increased amenities. Other units have private funds which enable them to supply practice ammunition to their teams with which to win competitions; this is a good advertisement; a unit which makes a habit of winning competitions proclaims the keenness of its members.

Geography would seem to have little to do with numbers. Some units are better placed than others, but recruits come from all over London. It does affect the popularity of the officers' mess, and at least one battalion in the west-end has a lunch and dinner club where officers can meet every day.

Officers usually recruit each other; more boys might join from school if they were canvassed directly. Some who would be willing to serve their country without reward are unable to pay for the privilege of doing so; the more attractive headquarters becomes, the higher will regimental subscriptions rise; but the Territorial Army officer is only paid while in camp.

Advertising on an adequate scale is beyond the means of a battalion whose annual budget has often to be balanced through the generosity of its members, past and present. It is probable that advertisement on a big scale with Government support would enlighten public opinion as to the real value to the country of the Territorial Army and at the same time remove the misleading side of the "Spade and Bucket" idea.

PROBLEM 2.—TRAINING

If the average soldier turns up once a week for an hour during the "headquarters" period, besides dances and entertainment nights, he is doing more than he is obliged to do. What can you teach thoroughly in fifty non-consecutive hours?

The Territorial Army wants to achieve a standard which will enable it to compete, in certain subjects at any rate, with the Regular Army. When numbers are weak and attendance irregular (only the company commander knows what genuine difficulties his men have to surmount to keep parades) the task of creating and carrying out an interesting programme, week after week, throws a heavy strain on a man who has just finished a tiring day's work, and who has, in addition, to find time to keep himself up to date and some means of practising his juniors in instruction. Again it must be emphasized that the quality of instruction directly affects the attendance on parade. While excellent instruction is given by the London District, the Territorial Army officer is faced with the fact that a Regular Army instructional syllabus relies on continuity and time for repetition, both of which are lacking in the Territorial Army where the instructor needs to be master of his subject in order to present it to his men with variety and interest, and at the same time to impress its principles firmly on their minds in a short space of time.

The training of specialists need not necessarily be a bogey; in different units company commanders have succeeded in turning machine gunning and signalling into absorbing hobbies, with the result that a remarkable standard of efficiency has been attained.

The machine gunners then are busy dropping tripods on the polished dance floor (the Saturday dance "let" is an essential item in the budget); the signallers, intent on a cut-and-dried path to efficiency, are buzzing and gossiping after the manner of signallers; the Bisley-ites are plugging away with air-guns (because the o'22 ammunition is required for recruits); but what to do with the rest

of the Army, or such of it as has turned up ? (If any one is interested in the numbers available let him take the average strength of a London battalion and after subtracting the machine gun company, signallers, transport, and band, divide the answer by three.)

Centralized instruction on the cadre system will work well for short periods, but without the company commander's personal encouragement and influence the company spirit begins to flag, and the soldier, faced with the opportunity of taking his girl to the pictures or a bus to headquarters, chooses the more attractive alternative ; he too has had a busy day.

The sand table is an excellent stand-by, but the number of officers who can throw off a bright and sound exercise without a great deal of preliminary hard thinking is limited in any army. "One Hundred Witty and Instructive Exercises for the Sand Table" is a badly needed volume ; like gramophone needles they ought not to be used twice.

While the centralized programme can provide sound instruction by good instructors for short periods and so give the company commander time to work up his next turn, the actual work of instruction will probably fall on the permanent staff and the company commanders. The officers' T.E.W.T. is excellent for clearing up heresies of training or principles, but for the non-commissioned officers it is not so easy ; they must be warned a long time in advance and it may rain ; and their Sundays are devoted to other pursuits. These are only minor difficulties of course.

For the "headquarters" period, then, we require : (a) instruction for officers in instructing, and (b) a programme which will :

- (i) Maintain a thorough and progressive course of instruction for non-commissioned officers and men.
- (ii) Instruct and exercise the officers without overworking the more capable or neglecting the less experienced.
- (iii) Strike a balance between the maintenance of company spirit and the superior value of centralized training.
- (iv) Remain undefeated by weak numbers and once-weekly attendance.

(It must be remembered that a man can only come on one stated night which cannot be changed without long warning and inconvenience. On other nights they attend night schools, look after their families, and seek recreation.)

In the camp period conditions approximate more closely to those of the Regular Army in that the men are concentrated and

are available for the whole of a number of consecutive days. With weak numbers the "cadre company" system outlined by Captain Arnold * has been worked satisfactorily until battalion training was reached, when it suffered by becoming unreal.

Under this system it is possible to give concentrated instruction to the officers, but an officer is not made by T.F.W.T. alone ; he requires opportunity to make mistakes in practice and so learn by experience. Owing to the camp period being so short (many Londoners can of necessity attend for one week only) it is important that each operation should be done right the first time, or else the officers are being instructed at the expense of the men, who are left with the wrong picture in their minds.

Afternoons and week-ends are sacred to sweethearts and wives ; hence the importance of the " Spade and Bucket " locality. This is often the Territorial Army soldier's only holiday, and while he will work as hard as his city-trained condition will allow and even volunteer for night operations, he does like a nice bright promenade to walk out on afterwards.

The seaside is a long way from Charing Cross and even when training areas are issued early in the summer, it is not always possible for officers to make up a great number of schemes on the ground. The Staff College lives by making up schemes and it would be a further boon if the officers to be attached to Territorial Army brigades were to make up a few outline schemes, suitable to the ground, on which the Territorial Army officers can build up their programmes. The attachment of Staff College officers in camp provides the Territorial Army with a mine of up-to-date information, straight from the horse's mouth, and as no amount of questioning appears to exhaust them, their value can be enormous.

Any discussion of Territorial Army problems brings out the fact that conditions are different in every unit and locality, and the London battalion has to face difficulties of a different sort from those that confront the County unit. No single solution can be sufficiently comprehensive to meet such widely varying conditions, but solutions will be found in the ways in which individual commanding officers overcome their particular difficulties. That in some cases these difficulties must appear to be almost insuperable is sufficient reason for giving those who are searching for a solution a clear idea of the magnitude and variety of the problems to be solved.

* See *The Army Quarterly*, October, 1929.

THE SOVIET RED ARMY.*

PART II.

BY ALEXANDER SMIRNOFF.

It is necessary, in order to obtain a correct appreciation of the Red Army, its organization and administration, to understand the structure of the late Imperial Army, as there is a very close connection between the two Armies. At first sight this mode of approach may appear strange, and yet after a thorough study of the subject the writer has been compelled to recognize that it is impossible to understand in any other way the working of the Soviet forces as they exist at the present time.

It is interesting to note that Lenin, in the summer of 1917, a few months before the Bolsheviks came into power, openly stated that Communism, such as existed in Paris in 1871, was the ideal for which one and all should aim. A parliamentary form of government in his words stood for a regular army, police and officials, which could not be tolerated by a true democracy.† By a decree, dated the 5th of December, 1917, therefore, he demobilized all the Russian forces, but in the following January he decided to maintain a Volunteer Army. This force, however, failed in practice, and it was then that the Government, on the 22nd of April, issued a new decree enforcing conscription. This decree has remained in full force up to the present day. The Conscript Army was from the first intended to be the Soviet's weapon of propaganda and political enlightenment of the masses.‡ "The Army," said Trotsky, "in its origin, is a strictly centralized body, closely bound with its centre. Where there is no centralization, there is no army."§ The discipline of such an army, he maintained, would have to be ten times greater than the discipline that had been deemed necessary in the Tzar's Army. || The

* The first part of this Article appeared in the *Army Quarterly*, October, 1929.

† See Lenin, "Problems of the People in our Revolution," pp. 11-16.

‡ See Sharmanoff, "Structure of the Red Army," p. 11.

§ See Trotsky, "Organization of the Red Army," p. 8.

|| *Ibid.*, p. 19.

greatest difficulty which the Reds had to face in making their Army, was the shortage of officers capable of imparting instruction to the troops and of teaching the higher branches of military science to future leaders. For this purpose the enrolment of ex-officers was deemed imperative, thus by the middle of 1918 very many of them were forced to serve in the new Army. Trotsky in his speeches at this period made continual reference to the need for trained officers,* drawing especial attention to the need of an Army based on science.† For these reasons it was decided to adapt many of the old methods, which had so often proved pernicious both before and during the course of the World War, for, needless to say, it was impossible for ex-professors and officers of the former General Staff to change their mental outlook. Whatever may have been the mistakes made, however, in the organization of the Red Army the fact remains that the Reds were unable to reorganize a fighting machine without the assistance of former officers, and Trotsky himself has owned that without their help the armed forces of the Soviet would be no better than guerilla detachments.‡ It must always be borne in mind that the Red Army from its beginning to the present time remains the only organization of any importance in Russia for which funds are not spared, as it exists primarily for spreading communism among the population.

Unfortunately it is too little understood in Western Europe to what a degree the Red Army is used as the instrument of the Communists and that, as a result of the training they receive in the Army, a large percentage of men imbibe their teaching. Such men become apostles of communism, and spread its doctrines throughout the country, principally in the big cities. The Soviet authorities cunningly try to persuade the nation that it has at heart nothing but the welfare of the working class, that "the Red Army is the sword in the hands of the people," yet it also asserts that "the red soldier must fight for the interests of his party, the ideals of Communism, for which he must lay down his life." § They openly maintain that the officers serving in the Soviet forces should fully understand the fundamental principle of the régime: that nowhere has any army ever been, nor can it ever be, non-political. || In the words of Commissar Kursky, "the Red Army in its present form is a class Army, an Army of the workers and peasants."

The extent to which the Red Government trusts the working class

* Trotsky, "Organization of the Red Army," p. 13.

† See "Revolt of the Left Social Revolutionaries," p. 43.

‡ See Trotsky, p. 8 (Trotsky's speech).

§ See Sharmanoff, "Life of the Red Army," p. 5.

|| See G. Zinovieff, "The Army and People," p. 9.

and the peasants may be seen by the order issued by Trotsky prohibiting the inhabitants of all provincial towns from keeping any arms, and instructing the commissars to register all the stocks without fail.* No money has been spared from the first to spread the new political doctrines among the officers and soldiers, and it is interesting to note that during the first half of 1919 15,000,000 roubles were spent for propaganda purposes in the Army alone, while 45,000,000 were expended in the remaining six months.† It goes without saying that the State has not relaxed its efforts in this direction, and as years roll by it has perfected the machine which works with greater precision as experience is gained by the officials.

All soldiers, having been instructed in class warfare during their term of military service, are expected to spread the political ideas of Karl Marx among the population of the towns and villages as the case may be, the aim being to gain adherents in every walk of life. All military regulations point to the need of educating the rank and file in class hatred, especial stress being laid on the necessity of gaining proselytes in the enemy's forces should hostilities ever break out. It is interesting to note, as an example of the thoroughness of Soviet methods, that regimental military libraries mainly contain books dealing with communism, the "French Revolution," the "Parisian Revolt in 1848," the "Paris Commune of 1871," and every work of the same nature finds a place on their shelves.‡

Over 10,000,000 books of a political nature were sold during 1918 alone when the civil war was raging in Russia.

The Soviet leaders are fully aware that national aspirations alone would bring to their side the bulk of the population in the event of external danger; they are doing all they can to foster such aspirations for the benefit of their own political party. Nevertheless, all their efforts have failed to stir the peasants from their never-ending lethargy. It should always be remembered that the peasantry constitute four-fifths of the whole population, and are the real backbone of the Army, the veritable "Nation in Arms." The Soviet régime has already left its mark on the population; the physical standard has become considerably lower since 1914, a fact which is revealed by the conscription law of 1925, which cannot be kept secret. Recruits enrolled in the ranks are nine per cent. lighter in weight than in 1914, three and a half less in chest measurement and two inches shorter in stature, which proves a lower all round physical standard, due, no doubt, to

* See Trotsky, "Report on Organization of Red Army," pp. 16-17.

† See Sharmanoff, "Life of the Red Army," p. 10.

‡ See Tzikulenko, "Handbook for the Libraries of the Red Army."

inferior nutrition and greater hardships of life. The deterioration of the people is further emphasized by the fact that military service begins now at the age of twenty-two years and three months, while in the Tzar's time it began at twenty-one, and in Western European countries the age has always been fixed at twenty.

The Red Army is recruited by conscription which is ruthlessly enforced, service being obligatory either in the Regular Army or in the Militia. Whereas under the "Old Régime" about forty-seven per cent. of the men called up for service were discharged for family and other reasons, nowadays only thirty-four per cent. are rejected, and these for reasons of health alone.

At the present time service in the Regular Army lasts for two years, after which period, men are drafted into two classes of Reserves and are liable to be recalled up to their fortieth year. Service in the Militia lasts for eight months altogether, three months the first year, the remaining five months being spread over a term of four years. Men can always be recalled after this period should the authorities deem it necessary. A certain percentage of men who do not serve either in the Army or in the Militia are supposed to undergo some minor form of service, but, in view of the serious dearth of non-commissioned officers, this service appears to be of a nominal character.

It should be noticed that the Soviet authorities have been paying attention to the physical training of youths from the age of sixteen to nineteen, when the preliminary stage of military service actually begins. Youths reaching the age of nineteen have to undergo compulsory drill, gymnastics, camping out, which in reality is a minor form of military service and is far better organized than is the Boy Scout movement in Western Europe. Unfortunately, however, the training of these youths is not confined to drill and physical exercises. Political propaganda is brought to bear upon them, and Sharmansky triumphantly points to the fact that they will be useful for spreading communistic doctrines among the population.* In this way, during their periods of training, which are spread over a term of three years, the youths of Russia receive a thorough political tuition, so that when they enter the Regular Army or the Militia, as the case may be, at the age of twenty-two they are well grounded in the theories of Karl Marx and Engels. Be it noted, also, that only those who have undergone this preliminary training are allowed to serve in the Soviet Government service or in any of the unions.†

The Soviet forces on their peace establishment consist of over

* See Sharmansky, "Foundations of the Red Army," p. 13.

† *Ibid.*, p. 13.

600 battalions of infantry, 20,000 machine guns, about 750 batteries of artillery (4,000 light and 550 heavy guns). Cavalry has always played an important rôle in the Red Army, a legacy bequeathed by the Imperial régime. It is now organized in divisions, but in the event of war it would most certainly be grouped into corps and even into distinct independent armies. Such was the case at the time of the Red invasion of Poland in 1920; a Cavalry Army under Budeny pressed the Polish right flank forcing it to beat a retreat. After the war some authorities in Soviet Russia deemed such big units unwieldy, yet taking into account the military tendencies of the country, it seems likely that big cavalry units will be used again. In this respect the Red Army is simply copying a project drawn up in the reign of Nicholas I, to mass some 15,000 dragoons into a cavalry unit—a project which for some reason was never carried into effect. The Soviet military authorities have been greatly influenced in late years by this idea and have allotted several batteries of artillery to work in conjunction with the cavalry, which is a sound policy.

Precise figures concerning the strength of the Red cavalry are so far not forthcoming, but great hopes are evidently being placed on this arm and possibly the intention is to emulate the tactics of Jhengiz Khan, which are not unknown in Soviet Russia and have greatly interested military experts in England during the last two or three years.

The Air Force comprises some 71 squadrons equipped with about 800 aeroplanes, but this figure is probably an underestimate and it is likely that 1,000 aeroplanes would be nearer the truth, in view of the fact that the authorities give every encouragement to the improvement of this branch of the Service. There are four companies of technical troops, practised in the use of poisoned gases, but there is no evidence to show whether they are efficient or not. It should be noted, however, in this connection, that the Soviet military authorities give the greatest attention to every kind of invention of a scientific nature in foreign countries. They are closely studying the development of tanks, as they consider them essential in modern warfare.

The Red Army on a peace footing numbers 600,000 Regular troops, 300,000 being enrolled annually, while 600,000 serve in the Militia. This figure, 1,200,000, does not include the Red Guard, which is the backbone of the present régime and maintains order in the cities.

The Soviet authorities being fully alive to the fact that railways play an important rôle in case of hostilities, have given great attention

in the construction of new lines to strategic needs. In 1914, for instance, there was only one line connecting Orenburg and Tashkent, in Turkestan recently another line has been opened from Krasnoyarsk to Buhara, and yet another is being laid between Novo-Sibirsk on the Siberian railway and Pipshek. The Bolsheviks thus possess, in the event of war, considerable advantages over those possessed by Russia in the Tzar's time, and it needs no particular strategical insight to perceive that all these preparations are intended against the North-West frontier of India.

Turning to the training of the Soviet forces, it should be noted that the regulations are usually of German origin, the Russians as in the past looking to Berlin rather than to Paris for the source of their military inspirations. For generations before 1914, Prussian methods were copied in the Russian Army, but on the surface only; the functions of the Great General Staff in Berlin, as organized by Moltke, were never really grasped in their essentials by the higher leaders in Russia. After the Franco-German War, when most European countries began copying German methods, Russia also adopted conscription, but the Military Academy never freed itself of its pedantic outlook on the art of war. General E. Martinoff pointed this out on many occasions without result, and if some minor reforms were carried out after the Japanese War, yet no drastic measures were enforced to bring about a uniform doctrine of war, without which in modern days it is impossible to achieve success. In the Japanese War and in the Great War, Russian generals led their troops each in his own way—a course of action which reacted in a most pernicious degree on all military operations. Glaring examples occurred in Galicia in August, 1914, when each of the Russian Armies manœuvred in its own fashion, many dangerous situations only being averted with the greatest difficulty. All this confusion arose from a lack of a uniform military doctrine in Russia, and at the present time, in this respect, the Reds have so far been incapable of improving matters. Only in time of peace can future leaders receive adequate instruction in the higher branches of their profession, and if before 1914 the *Ecole de Guerre* in Paris, where Bonnal and Foch reigned, was only able to turn out *bons généraux ordinaires*, as a result of a one-sided presentment of the military science, what can be expected from Russian officers?

There is no trace in the military literature published in Russia at the present time which shows that there is any uniform outlook on matters of the greatest military importance; although undoubtedly some of the writers have correct ideas and display considerable

knowledge of their subject, their work is usually inlarded with political teaching and the technical details are neglected.

It is interesting to note that the Soviet army leaders, being themselves apparently unable to formulate any sound doctrine of war, have been forced to fall back on Suvoroff traditions, which at any rate have the advantage of making a direct appeal to the officers as they appeal to their patriotic feelings. While fully appreciating Suvoroff's genius as a leader and his outstanding influence on his troops, and while recognizing the value of some of his instructions, which in their day invariably secured success to Russian arms, no one would venture to assert that he left a legacy in the form of a war doctrine such as Moltke did for Germany, or Bonnal and Foch for France in modern times. This is not meant as any disparagement to Suvoroff, for even Napoleon himself during his lifetime never taught his marshals the art of war ; his theories on the science of war only became known many years after the publication of his correspondence.

Suvoroff's magnetic sway over his troops was due to a great extent to his fatherly interest in their welfare, and it goes without saying that no such personal ascendancy would be allowed in the Red Army to-day. The Reds are far too fearful of the advent of a popular leader to tolerate a new Suvoroff. That great leader was the arch-enemy of excessive centralization, and this objection to a central control would alone make it impossible to copy his example so long as the present régime lasts, for the Bolshevik leaders do not encourage any form of independence. "The first principle in forming officers is to entrust them freely with authority,"* is a sound military rule, but it is exactly the reverse of the Bolshevik principle, for in the Red Army every action of an officer is watched by a Government commissar, who countersigns every order emanating from a headquarters or barracks.

In Russia to-day only a national war would make a direct appeal to the masses, either for the defence of the fatherland or for the recovery of one of the lost provinces. But even such a war might be dangerous to the present régime, for the assembly of vast masses of troops from all over the country might well lead to many grievances becoming generally known that the Red leaders would prefer to remain unknown.

Regarding the all-important question as to how far the Red forces are efficiently trained and are of real military value, the writer has come to the following conclusions. There is little doubt that in the

* See Spenser Wilkinson, "The Volunteers and National Defence," p. 128.

central districts, where the authorities keep a watchful eye on the armed troops, they are quite efficiently trained and fit to take the field. Up to the rank of major or colonel the officers appear to know their ordinary routine military duties. But when it becomes a question of moving masses of troops and where the leaders of armies and corps would be required to manœuvre in cooperation with other large forces, difficulties would immediately begin. The absence of any uniform military doctrine would then make itself felt and the working of the war machine would be cramped and hindered at every turn. General Brusiloff's memoirs, which were recently published in Paris, prove (if any fresh proof were needed) that cooperation was but little understood in the Imperial Army, and there is nothing to show that it is understood any better to-day. As regards the rank and file, the writer cannot agree with the prevailing opinion that they are of no real value as soldiers. He believes, on the contrary, that a large percentage of them, if well led, would fight quite efficiently, for the Russian, as history proves, has always been a tough soldier and a stout fighter. It should be remembered how well he fought in the most difficult conditions in the Japanese War in 1904-1905, and in the World War. In a future war all will depend on the regimental officers and their treatment of their men. Measures of repression would be of no avail with Russian troops. Emotional by nature, the Russian is capable of great deeds when an appeal is made to his better feelings and when he knows that his leaders are never forgetful of his wants and show an example of doing their duty. But it will be difficult for the officers in the Red Army to get such an influence over their men ; Commissars will be supervising everything, and will speedily damp the ardour of any officer who displays any initiative.

Finally, the writer would like to point out that Russian generals under the Soviet régime cannot—even if they have the ability—fashion the Army into a perfect fighting machine. Until the mistakes of the past and of the present are drastically rectified, and an efficient General Staff can develop a common doctrine of war, the Red Army cannot become an efficient fighting machine. Only a dictator can bring this about—a man who by his all-powerful personality and outstanding abilities will implant new life into the Army. Should such a leader arise, he will not only dominate the Army but also the State itself.

MECHANIZATION AND WAR

By BRIGADIER SIR HEREWARD WAKE, C.M.G., D.S.O.

It is plain that as mechanization develops, the whole army reorganization will have to be reconsidered, since the old-fashioned foot soldier in his trench is helpless against a tank working in cooperation with an air squadron. The army of the future will be a small and highly-trained force of experts, as compared with the masses required under the Napoleonic System that Germany and other nations in her wake took over and developed to a ruinous extreme. The traditional British belief in a small army is thus being re-affirmed, very much to the advantage of the cause of peace and economy, which the conscript armies of Europe have obstructed too long.—*Sunday Times*, 25th of August, 1929.

THE above is taken from a short article on the Army Manœuvres just then concluded. The writer sees in mechanization the salvation of the world—fleets of tanks in place of national armies ; casualties reduced in proportion ; less expense ; and, by some obscure process of reasoning, he deduces that this state of affairs will serve the cause of peace.

As a forecast of the next war, these claims are nothing new since the finish of the last one. Much has been written by those who believe that tanks will so dominate the battlefields of the future that infantry in its former fighting rôle is practically obsolete. It is a comforting thought that tanks will enable nations at war to avoid the slaughter, and, incidentally, the expense, that have been hitherto involved. But it is surely strange to find the advocates of peace claiming that their cause is served by the introduction of a new means of destroying human life. Probably they would put it in a different way ; peace, they say, is obviously desirable, but, if we fail to attain it and war does come, we have at any rate found a less unpleasant way of waging it : our tanks will annihilate the enemy's masses or, if the enemy's army is also mechanized, the actual fighting will be confined to relatively small forces of opposing tanks.

As these arguments appear to have a somewhat wide support, it is worth while to make certain whether they are true or not.

The effect of new inventions on the wars of the past by no means bears out the statement that mechanization will make war between civilized nations less destructive than before. Indeed, the opposite

effect might be expected. The probable character of the next war will be discussed later ; for the moment it may suffice to point out that every new application of scientific knowledge to the conduct of war, and particularly to means of transport, since the world began has added to its destructive power and effect.

Mechanization—one of the new inventions applied to war—has already had the effect of enabling vastly larger armies to be maintained in the fighting zone than ever before. It has assisted greatly in evacuating the sick and wounded and in returning them quickly to the battlefield restored to health. It has enabled armoured vehicles to take part in the battle but without any diminution of casualties.*

In fact, up to the present, mechanization may justly be said to have added very considerably to the casualties on both sides.

As regards the claim that the discovery of a less frightful method of waging war is of advantage to the cause of peace. What is the best guarantee of peace ? Surely it is the fear of war. Nations are far less likely to resort to war if they know it will mean a ghastly experience whether they win or lose. To assert that the next war can be made much less terrible by employing tanks and aeroplanes, or by any other means, is to remove a great deal of the fear of it. Nor is such an assertion capable of proof.

There are also other statements in the article quoted at the head of this paper which require consideration. For example, the statement that “ the traditional British belief in a small army is thus being re-affirmed.” Surely this belief, as far as a European war is concerned, perished in 1914. The idea that the long-service British Army would prove itself superior to equal numbers of conscript troops was found not to be correct. When it came to the test, there was not very much difference in military value between a British division and a German or French one. The advantage of our longer training was about balanced by a certain inferiority in equipment, especially in machine guns and artillery.

Up to 1914 other European nations had perforce prepared to put every available man in the field, and, when war came, we did the same as quickly as we could. Our “ traditional ” policy of a small army, which had of course been followed for quite other reasons or quite other wars, had to be promptly abandoned directly the big war began. If such a policy had been adopted by either France or Germany, the war must have ended in complete defeat in a few weeks for whichever had adopted it. It was not the conscript armies

* The British casualties during the advance to the Rhine (8th of August to 10th of November, 1918) were nearly 380,000.

of Europe which were "obstructing the cause of peace." The weakness of England's Army did that, being one of the main factors which Germany took into consideration when she started the war.

But, even if we disregard past experiences, on what facts can the statement be based that "the army of the future will be a small and highly trained force of experts"? No nation is going to war unless it intends to employ its whole strength and resources to crush its adversary. There are strict limits to the numbers of aeroplanes and tanks that can be put in the field at the start, however decisive they may be thought to be. Nor would it be safe for us to assume that we shall have any particular advantage in such weapons over the enemy; we do not keep our tanks a secret, in fact we advertize them on every possible occasion. And, further, as the destruction of most of the tanks engaged may certainly be expected in the first battle, both armies will have to get along without them till a new supply can be manufactured—a matter of more than a few weeks. It is difficult to see how the size of armies will ever be limited by the possession of armoured mechanical vehicles.

But, although tanks will be few in numbers at the outset of hostilities, if they are irresistible, they may certainly prove locally decisive. The writer of the article quoted considers that they are irresistible. He says that "the old-fashioned foot soldier in his trench is helpless against a tank working in cooperation with an air squadron." The infantry might retort that tanks are useless at night or in woods or in holding a position under an artillery bombardment and so on; but let that pass for a moment. Will infantry really be helpless if attacked by tanks on suitable ground? Or, if not quite helpless, will it be at a serious disadvantage?

The answer to this vital question depends on the vulnerability of tanks against infantry fire—a term which must include the fire of all the weapons which infantry can bring to bear. Tanks at short range can never be a difficult target, no matter what their speed. Will their armour give their crews sufficient protection? This question the future must decide. The anti-tank gun will knock out any tank with probably one hit, but it is cumbrous and it cannot be everywhere. The British tank of 1918 gave reasonable protection to its crew against German rifle and machine-gun bullets. I do not know whether our present tanks give equal protection against the latest armour-piercing bullets. Ballistics have made, and are still making, great strides since 1918; armour is being improved also. We can only assert that the crew of a tank must have reasonable protection against infantry fire, or it will never get to close quarters

with infantry. As long as there is any doubt on this question, it is somewhat rash, to say the least, to claim that infantry is helpless against tanks.

But, assuming that tanks can be produced which can stand up against infantry, the most important question appears to be how far they can replace infantry. Originally tanks were intended to help infantry do their job in the attack—a task which machine-gun fire rendered extremely costly and in certain conditions almost impossible. Terrific artillery bombardment had not been found enough, and tanks were devised as an added support to, not as a substitute for, infantry. In fact, during the war, they never replaced infantry; and it must be remembered that in 1918 the turn-out of tanks was immensely greater than it could ever be during the first year of a war.

The successful offensive of the British Fourth Army at the battle of Amiens, the 8th to the 11th of August, 1918, is often cited as the best example of the employment of tanks on a large scale in the attack. The Army Commander, General Lord Rawlinson, issued a special Order dated the 16th of August stating that "the success of the operation was largely due to the conspicuous part played by the tanks." At the same time he wrote to the Secretary of State for War as follows:

We shall soon drive back the enemy at least to the Somme, if not beyond it. All you have got to do is keep our infantry up to strength and not waste man-power on tanks or aviation. They won't win the war for you as infantry will. We cannot beat the Boche without infantry. Tanks, aeroplanes, etc., are a great help, but they cannot and will not win the war for us by themselves, so don't let L. G. think they will and persist in developing them at the expense of the infantry.*

At the commencement of its offensive the Fourth Army included 177 battalions of infantry:

A total of 688 tanks had been in action on the 8th, 9th, 10th and 11th of August; 480 machines had been handed over to salvage; very few of the remaining machines were actually fit for a lengthy action, and all required a thorough overhaul.†

The old-fashioned foot-soldier has a hundred jobs in war that tanks or their crews can never do for him. Not least of these jobs is to hold a position under an artillery bombardment, a situation in which tanks are useless. Indeed, it is difficult to see how tanks will ever replace infantry or reduce the proportion of infantry to other arms, even on the most favourable ground, while many theatres of

* See "The Life of Lord Rawlinson of Trent," by Major-General Sir Frederick Maurice, page 232.

† See "Tanks in the Great War," by Bt.-Col. J. F. C. Fuller.

war have but few spaces where mechanized vehicles can go off the road at all.

It is plain that no hope can be placed on mechanization in any form to make war less destructive, less far-reaching in its effects, or less likely to occur. The public are very apt to draw quite false impressions from what they hear that the Army is doing, the wish in most cases being father to the thought. Before 1914 the man in the street believed that England would get through the next European war with a small professional army, and even soldiers lent their support to the theory. But although the war proved it false, the old argument now appears again. This time it is mechanization which is to be our salvation in the next war, or which possibly, if by some means we can keep the monopoly of it, is to deter other nations from venturing to fight us. People forget that the soldier's job is to prepare for the next war ; to avoid it is not his particular business. He adopts mechanization, like other scientific developments, with the same ends in view. Let nobody suppose that his ends are merciful.

Nor, indeed, is it possible to make war less costly in lives, or to prevent it becoming more so in the future. In the concluding chapters of "The Aftermath" the author shows how scientific knowledge has continually added and will always add to the destructive possibilities of warfare. His conclusions appear unanswerable, and his forecast of what the next war may mean must be quoted at some length to show his argument : *

It was not until the dawn of the twentieth century of the christian era that war really began to enter into its kingdom as the potential destroyer of the human race. The organization of mankind into great states and empires and the rise of nations into full collective consciousness enabled enterprises of slaughter to be planned and executed upon a scale, with a perseverance, never before imagined. All the noblest virtues of individuals were gathered together to strengthen the destructive capacity of the mass. Good finances, the resources of world-wide credit and trade, the accumulation of large capital reserves, made it possible to divert for considerable periods the energies of whole peoples to the task of Devastation. Democratic institutions gave expression to the will power of millions. Education not only brought the course of the conflict within the comprehension of everyone, but rendered each person serviceable in a high degree for the purpose in hand. The Press afforded a means of unification and of mutual encouragement ; Religion . . . offered its encouragements and consolations . . . impartially to all the combatants. Lastly, Science unfolded her treasures and her secrets to the desperate demands of men.

In consequence many novel features presented themselves . . . whole nations were methodically subjected . . . to the process of reduction

* See "The Aftermath" (Chapter XX), by the Rt. Hon. W. S. Churchill.

by famine. The entire population in one capacity or another took part in the war ; all were equally the object of attack. The Air opened paths along which death and terror could be carried far behind the lines of the actual armies—to women, children, the aged and the sick, who in earlier struggles would perforce have been left untouched. Marvellous organizations of railroads, steamships, and motor vehicles placed and maintained tens of millions of men continuously in action.

Healing and surgery in their exquisite developments returned them again and again to the shambles. Nothing was wasted that could contribute to the process of waste. The last dying kick was brought into military utility.

But all that happened in the four years of the Great War was only a prelude to what was preparing for the fifth year. The campaign of the year 1919 would have witnessed an immense accession to the power of destruction. Had the Germans retained the morale to make good their retreat to the Rhine, they would have been assaulted in the summer of 1919 with forces and by methods incomparably more prodigious than any yet employed. Thousands of aeroplanes would have shattered their cities ; scores of thousands of cannon would have blasted their front. Arrangements were being made to carry simultaneously a quarter of a million men, together with all their requirements, continuously forward across country in mechanized vehicles moving ten or fifteen miles each day. Poison gases of incredible malignity, against which only a secret mask (which the Germans could not obtain in time) was proof, would have stifled all resistance and paralysed all life on the hostile front subjected to attack. No doubt the Germans, too, had their plans. But the hour of wrath had passed. The signal of relief was given, and the horrors of 1919 remained buried in the archives of the great antagonists.

The war stopped as suddenly and as universally as it had begun. . . . In a hundred laboratories, in a thousand arsenals, factories and bureaux men pulled themselves up with a jerk, turned from the task in which they had been absorbed. Their projects were put aside unfinished, unexecuted ; but their knowledge was preserved ; their data, calculations and discoveries were hastily bundled together and docketed "for future reference" by every War Office in every country. The campaign of 1919 was never fought, but its ideas go marching along. In every army they are being explored, elaborated, refined under the surface of peace, and should war come again to the world it is not with the weapons and agencies prepared for 1919 that it will be fought, but with developments and extensions of these which will be incomparably more formidable and more fatal.

Certain sombre facts emerge solid, inexorable, like the shapes of mountains from drifting mist. It is established that henceforward whole populations will take part in war, all doing their utmost, all subjected to the fury of the enemy. It is established that nations who believe that their life is at stake will not be restrained from using any means to secure their existence. It is probable—nay, certain—that among the means which will next time be at their disposal will be agencies and processes of destruction wholesale, unlimited, and perhaps, once launched, uncontrollable.

Mankind has never been in this position before. Without having

improved appreciably in virtue or in wiser guidance, it has got into its hands for the first time the tools by which it can unfailingly accomplish its own extermination. That is the point in human destinies to which all the glories and toils of men have at last led them. They would do well to pause and ponder upon their new responsibilities.

Death stands at attention, obedient, expectant, ready to serve, ready to shear away the peoples *en masse*—ready, if called on, to pulverize, without hope of repair, what is left of civilization. He awaits only the word of command. He awaits it from a frail, bewildered being, long his victim, now—for one occasion only—his master.

It seems unlikely that the above forecast of future warfare between great civilized nations is an exaggerated one, whether tanks are “destined to revolutionize the science of war”* or not. With all the facts before us, it is surely obvious that mechanization will not help the cause of peace, nor make war less bloody, any more than the invention of gunpowder did. Nothing will make war less frightful, and other inventions are already in the military market which bid fair to eclipse the tank as revolutionizers of warfare, namely poison gas and aeroplanes. These two weapons qualify Napoleon’s dictum that the first object in war is the destruction of the enemy’s army, for they will attack the populations, cities, factories, arsenals and communications on which a modern army depends from day to day for its maintenance. In these circumstances an army in the field may well await news from home with greater anxiety than the people at home await news from the front.

* See “Tanks in the Great War” (Dedication), by Bt.-Col. J. F. C. Fuller.

“ TWO PICTURES ”

By ARTHUR VINCENT

Foreword.

Strict accuracy is not claimed. In certain circumstances, however, an ounce of imagination can achieve more than a pound of unanalysed habit. The object of these pictures is to unfetter the imagination, after which common sense and logic must take the helm.

Map Reference.

Any large-scale map of Waziristan.

NO. I. THE OLD.

It was a typical January day in South Waziristan. Under a cloudless sky of innocent light blue the sun's rays were hot, but in every chance spot of shade was a warning coolth which called to mind the penetrating cold of nights past and to come. The rugged broken landscape of rock was uniformly khaki save for the far-distant misty blue of the mountains on the horizon ; its character suggested that the Creator had taken all the bare, inhospitable rocks of the world and had thrown them down there in one vast meaningless tangle. Scarcely a spot of green broke the monotony ; here and there were a few low, stunted trees, on the slopes there was dull camelthorn and its kin.

Hard fighting had been the order, without a break, since early daylight. The hills and valleys resounded with the rattle of musketry, varied here and there with a burst of automatic fire or the bang of a small pack howitzer. Two or three aeroplanes cruised here and there, dipping every now and again to engage a ground target.

The day's programme was an advance by two infantry brigades and an immense column of transport through a narrow defile, whose sides had earlier been successfully piquetted, but whose further opening was dominated effectively by a long, high ridge on the right and another hill, fancifully called the Marble Arch, which fronted the line of march. The advanced guard had comprised two

battalions less two companies : these latter had been given, as a flanking detachment, the separate task of making good the ridge on the right.

Early in the day the vanguard had been surprised by a determined party of the enemy rushing out from a concealed nullah at close quarters, but after the initial shock, the sepoy had given more than he got. Later on, the advanced guard had been held up by sheer weight of rifle fire. It was the flanking detachment which had become the problem of the day. The northern tribesman is as sure a judge of tactical ground for infantry as any in the world ; and by the afternoon the task originally assigned to two companies of infantry remained as yet unachieved by those companies backed up by a second whole battalion and two companies from a third.

The prospect of any further appreciable advance for the day was thus definitely dead. In view of the costly business of a retreat from battle in frontier warfare and of the fact that the huge column of transport had got so far from the last camp that it could not be turned back, the question had become simply one of digging in, consolidating, and hoping for the best. It was not an inviting situation. The only possible camp site was extremely exposed to rifle fire from most directions. Still, there it was, the enemy's resistance had exceeded all expectations ; there was nothing left to do but to camp *in situ*, and to keep an iron nerve. Fortunately, the force commander was born and bred with the latter. Accordingly, the calculated risk of tragedy by night was taken in the calculated and ultimately fulfilled hope that the indomitable bravery of the men would bring success on the morrow.

The major and the captain were sitting under the lee of a little hillock, with the restfulness of the watching eagle, as were their men around and below them and those of a sister company close at hand. From where they were they could watch from afar the battle for the ridge on the right, and could hear over a low intervening ridge the firing of the advanced guard in front. Last reserve in the main body, they had not had much of a day—no fighting had come their way, though the enemy's "overs" had now and again taken sorry and unanswered toll among their men.

The two officers were markedly different in type, though both equally representative of the finest body of officers in the world. The major was long, lean, grey and grizzled, with ribbons on his tunic which showed an intermittent acquaintance with frontier and African fighting for a dozen years before the Great War. Here was one who, in brain and in bodily fitness, too, could dependably

outwit the Mahsud at his own game. The captain—for in India they made boys captains in those days—was nearly twenty years younger, though at moments there was a curiously old look in his keen, hard-bitten face. In 1915 he had somehow slipped over to France with a temporary Commission before he was eighteen, and thereafter, with more than one interval, due to wounds, he had plumbed the full horrors of infantry life in France, earning hard experience and not a little distinction. At the war's end, with no settled career and with the years which should have been spent in high professional study all spent in the trenches or in front of them, he had accepted gladly a Commission in the Indian Army to provide him with bread and butter. The years of blood and mud had left their marks, and he knew equally well what it feels like to be behind a friendly tank and to dodge unprotected in front of a hostile one.

As the pair sat waiting, they discussed the day's and the previous month's events.

"You know, sir," said the captain, "it seems a terribly slow business. Goodness knows France was slow enough, but until its last year I don't think any one really expected us to move fast. We could do it behind the tanks, of course, but, till they came, it was a question of yard by yard through forests of barbed wire . . . and pretty nearly forests of guns, too," he added with a laugh.

"Still," he went on, "when I got out here and this show started, I must confess to hoping we'd get along faster, even in difficult country, against an enemy with hardly a solitary coil of barbed wire and not a gun to his name."

The major's eyes wrinkled into a smile.

"Yes," he said, "you're right. It is a terribly slow business. Even in Palestine we moved much quicker when we did move despite all the Turk's guns, machine guns and wire; but the country was easier and, once we'd holed the defence or got round it, our cavalry got fair play and made more than the most of it. Our one squadron here hasn't had a dog's chance, and doesn't look like getting it."

Then, after a moment's silence, he continued:

"What seems to be hanging up this show is the unprecedented way in which the Mahsud and Wazir are standing and fighting. I've never known any tribe do it before. What I saw in 1901 and 1902 was child's play to the way they're sticking it now. In Somaliland there was some stiff stuff at Jidballi, but much of it was the bravery of ignorance. In 1908, I thought the Mohmand pretty stout till he collapsed, but he never showed a quarter of the grit these

gentry are showing. Even the other day the Tochi column had a walk-over. But this lot—no. They were at us hard directly we reached Jandola. The first dozen miles, from Khirgi to Black Hill, took us four days and cost nearly seven hundred and fifty casualties. It's taken us more than three weeks to do another eight miles, and the 'A' folk told me last night the casualties were over the eleven hundred mark already, before we started to-day's little breeze. There's been nothing like it since we first took over the legacy of frontier defence from the Sikhs just seventy years ago."

His voice died down as an extra heavy burst of firing sounded above the continuous rattle, apparently at some invisible spot at the far left of the general action. For a few minutes both scanned the country through their field-glasses. Then the major resumed, meditatively :—

"Yes, it's pretty clear. This time the tribesmen mean real business, and so, thank God, do we."

"How, sir?" asked the captain.

"Well," came the reply, "I understand that this time we're to go in and stay in. No more half-measures of 'burn and scuttle.' It's not been done on the present lines for years. Once at Kaniguram and Makin we are to sit there until the enemy comes to terms, and then we're to stay, there or thereabouts, to see that he gets no chance of breaking them. He'll always find temptation in our lines of communication with their piquets full of rifles and their interminable convoys of slow-moving animals, but he don't like a strong mobile garrison in his middle, and he may be good for a long time."

"But, sir," said the captain, "won't he fight harder than ever to turn us out?"

The major thought for a moment. "No," he said slowly. "I don't think so. He's a curious chap. He doesn't seem to mind being good when he's damn well made to be. Nine-tenths of his trouble is due to sheer poverty in an unirrigated, roadless land, for which his mind, if left to itself, conceives no remedy save robbery under arms. Only the odd tenth is due to the devilment of the harder nuts among him. At bottom he likes security and full meals as much as any man, when he can get 'em, and he's fond of his bit of profitable trade when he can get that; but he seldom gets either till we force them on him. The blockade of 1901-1902 was a mild affair, but it made him think hard and then be good.

"Yes," he continued after a pause. "That's the answer. Go in and stay in. Give the blighter security in which to grow and harvest his crops; give him good roads down which to take his

produce for sale ; give him a bit of initial capital as payment for his share of the road-making. Above all, when you've done that much, hold his communications yourself. He can't live long away from the main valleys where the communications go ; they're where all his food comes from. Keep him peaceful there ; let him see your strength continuously, not continually ; and in time he'll grow as peaceful as the Kakar and Atchakzai of Baluchistan however much more iron he may have in his blood to start with. Go in, and stay in. But it's the going in that's going to be the costly business during his present frame of mind."

As he spoke there came another furious burst of firing from the far left. At the same moment an aeroplane with its engine almost cut off coasted quietly down over their heads, on its way to drop a message at headquarters — a graceful thing of silvery grey, the deadliest weapon of the force and as new a thing as the hills are old. Both gazed for a minute at its smooth even flight, and listened to the swelling roar of its engine as it zoomed up from the troops again.

The captain broke the silence.

" Sir, you know what you were saying just now about the enemy meaning real business this time, and standing and fighting as he's never done before ? "

" Eh ? " said the major.

" Well, sir, that aeroplane reminded me : doesn't it seem an awful pity that now we've got him collected, and sticking it out, we haven't got anything to hit him harder with ? "

" What d'you mean ? " asked the major, jealous, as should be, for his men, whom he rightly counted as amongst the hardest-hitting infantry in the world.

" Look at us, sir," rejoined the captain. " We've got very few aeroplanes, not too many guns, not a Vickers with the whole force, not a single tank, only enough armoured cars for the lines of communication, not an ounce of gas, but only thousands of unarmoured men who for most of the time have to go all out simply to meet the enemy on anything like even terms. And that's hard enough : the defence has it all the way in this country, as between infantry and infantry. So it had in France, till we got the tank."

" I don't know," replied the major slowly. " I don't think tanks would have much of a look in in this country, they could never get to close-enough grips. We could do with more howitzers. Gas we can't use—we've got to cover too much of the same ground ourselves. Aeroplanes make a huge difference in Intelligence, but they don't often get a good bullet target, and when they bomb they're apt to hit

women and children, and that's good for neither side. No . . . I'm afraid that the bulk reduction of master Mahsud must always remain the job of the P.B.I., whatever aids it receives in the business from other arms."

The captain grew puzzled, like a man who is trying to solve a sum that looks as though it ought to be supremely simple and somehow isn't. A little pucker formed round a wound scar in his forehead, and made him look strangely old for a moment. Then he spoke.

"I don't feel so sure about it, sir. Go in and stay in, you said. Of course, that's the single answer. But it's the going in which is terribly costly. God knows what to-day's bill will be. Could we . . . couldn't we . . . somehow . . . go in in armour?"

His voice trailed off as a regimental runner, panting and dusty, with a fleck of blood blackening from a graze on his cheek, dropped on his knee under the lee of the hillock to give the major a message. The major smoothed the crumpled paper, and, as he read, the light of battle grew swiftly in his keen eyes. His face wrinkled into a smile as he said:

"It's our turn at last, lad. Read that. Whatever to-morrow may bring, it's the P.B.I.'s job to-day."

The message was curt and clear. A fresh gathering of the enemy in broken ground out on the left had brought sudden danger to the sadly exposed camp site with its acres and acres of unwieldy transport. The two companies were to move at all speed, to deal with the new danger at any cost.

In a few minutes both were on the move, going in perfect order, not even at a marching pace, but covering the rough ground at that steady shuffling trot which, over hill and dale and under the weight of the full active service "Christmas tree," betokens the physically fittest troops in the world.

Within half an hour they were at full grips. The terrain was a tangled jumble of rocks; the men were spread out, kneeling, lying, always behind such little cover as there was, always advancing methodically by little rushes of little groups, each rush covered by the heavy fire of the groups momentarily stationary. Ever and anon the Lewis guns chipped in to tip the scale. Amid the fighters were others on the ground who writhed in agony, others again who lay deathly still, but never a man who could fire, or go forward, checked in his task for an instant.

Things were going well. The enemy, doggedly contesting every yard of the way, was finding the first-rate training and unbreakable

moral of a first-rate battalion too much for him. Slowly but surely he was being pushed back towards the jagged, uneven ridge which, once seized and held, would prevent effectively his further interference with the growing camp. After a while, the right of the attack moved somewhat slower, and gradually came to a stop. The captain, in command there and with the situation at his fingers' ends, threw in his last supports and led his men forward to bayonet distance. Behind a rock an enemy missed him in his stride at six feet away : with a grunt of delight his orderly shoved a bayonet half a foot beyond the man's back. There was something like a rugger scrum ; and the captain had but hazy recollections thereafter until he found himself organizing the defence of the ridge, with his remaining men taking gleeful pot-shots down its far side at an enemy fleeing wildly in disorder.

Having settled matters satisfactorily, he handed over command to his subadar, and turned to go and report to the major. It was sorry ground that he traversed, dotted everywhere with the dead, wounded and dying. Finally, at the edge of a group where the stretcher-bearers and assistant-surgeons were busy, he found the major, lying with his head on a rough pillow of coats, ashy grey of face and with blood on the ground beside him, but still smiling.

"Well done, lad," came the greeting, spoken with evident effort. "That was a splendid charge of yours. We've done all they asked of us. Don't worry. It's put paid to me, but I've had my run. It's the others . . . eighty of my lads down . . . fifty'll never fight again. . . ."

His voice grew slower and lower. "Jackson here takes command. . . . You and your armour ! . . . You're *quite right* . . . But we've got to go on as we are till we get it. . . ."

The end of the Old.

II. THE NEW.

It was more than twenty years before the folk of South Waziristan gave serious trouble again. The generation which had fought at Mandanna and the Ahnai retained as long as it lived the deep impressions left by that fighting. Still, much is forgotten in a score of years. Gradually there grew up a generation which knew not the trials and troubles of old, apt to be arrogant in its comparative immunity from battle, and over-prone to toy with the specious promises and more convincing gold which filtered in from Moscow.

No need to elaborate here the interweaving of events and influ-

ences which led to the crisis. Suffice to say that there came a time when the ineffectiveness of remonstrance was patent, and a moment when the only choice lay between strong swift action or the jeopardizing the security and tranquillity of the entire Border.

Much had happened in twenty years. The tribal armament had grown steadily in quality and quantity, though for the time being it had not proved an incentive to lawlessness. There had come from Russia a number of fairly serviceable light machine guns, smuggled in piece by piece and bartered for far more than their weight in gold. Much new prosperity had come to the country, but was centred as yet in the politically strong. The bulk of the populace had in nowise become too flabby to fight, and had retained all their natural aptitude for the game. Finally, political progress and the dire economy essential to the expensive modernization of India's own forces had led to the withdrawal of all regular garrisons to the Indian side of the administrative border. Local security within Waziristan had been gradually handed over to well-organized, trained and equipped units of the Tribes, with a satisfying measure of subsidy which cost far less than the garrisons of old. For a time the experiment had justified its most ardent advocates, and the new units had taken an equal pride in keeping the communications safe and in dealing effectively with bandits from the Western border. Then, there had slowly come other thoughts, as was to be expected.

Upon our own side of the administrative border great changes had likewise taken place. Armouring and mechanization had at last prevailed, despite the sustained opposition of the "old" school. There had as yet been little opportunity to try them out, and there was already a school of thought which set them down as excessively expensive in view of the results which remained as yet unjudged. In consequence, the Waziristan crisis, when it came, was hailed by those in authority with something approaching relief, as an acid test of the measures to introduce which they had had to fight so hard.

When the great break came, therefore, Khirgi was our foremost post on the road to Makin, and it was there that a suitable force was swiftly assembled for action, and reported ready on a hot April day.

* * * * *

. . . The leading company of light tanks slithered along the winding road at a steady ten miles an hour, a snake-like procession of khaki vehicles not unlike fat, low, armoured cars with tracks instead of wheels. The remainder of the battalion, and the rest of the force, were to remain at Khirgi in readiness until word should come back from the light tank battalion commander.

From the neighbouring hills came a continuous crackle of musketry, varied now and again by bursts of automatic fire, almost drowning the noise of the tank exhausts. Occasionally sounds suggestive of boiler-riveting would mark a group of hits on a tank. A little paint might fly, but other effect there was none, and the procession moved on imperturbably.

In the second tank, together with a subaltern and the working crew of two, sat the battalion commander. His tunic bore lieutenant-colonel's badges, and an array of ribbons going back to the Great War. Ensnared in his heavily padded seat, he was busy at "V-T-R," or Visual Radio-telephone. It was not unlike a heavy instrument of 1920, but at the back of the mouthpiece where in those days lived a "quick-reference" card of subscribers' numbers, was a curiously ribbed non-luminous mirror. On the tank wall next it was a frame with switches and a wave length dial. In the mirror, like a lead-coloured print, there could be seen the face of a captain, likewise seated in a tank, and jolting somewhat owing to the roughish going. The commander was speaking :

"No, not yet," he said. "Reynolds tells me there's a really big gathering just round the Palosina corner by Mandanna. We'll keep our bit of fun for that lot. Incidentally he says they put a bullet through his cockpit chair just now. I'll tell you when to act. Is absolutely everything O.K.?"

"Yes, sir," came the answer. "I'll wait for the word."

"Right," said the commander, and turned to move the switches and dial. The dull mirror seemed to flick, and in it the captain's face was suddenly replaced by that of an airman goggled and helmeted, behind which was an indistinct picture of an observer in a Lewis-gun ring against a clear sky.

"Hullo, Reynolds," said the commander; "just to tell you that we'll lose No. 1 bag of tricks at the Mandanna gathering directly we get there. We'll learn 'em good and proper not to push sharp bullets through your nice new armchair. Meanwhile, would you get ahead to the Ahnai whilst we do it? If you hang about Mandanna they'll be suspicious. Also, I'd like the Ahnai hotted as much as you can without risking your bus. If there's really an obstacle there it may mean some hard work. I'll call you back when I want you."

"Very good, sir," came the answer. "I'm off now, and I'll take Harper with me, keep the Ahnai busy, and wait your call."

An instant later two distant aeroplanes successively threw clean stall turns and voyaged north-westward out of sight.

The tank column proceeded smoothly for a while. As its head

moved to the left round Mandanna Hill there burst on it a withering volume of rifle and automatic fire, to which everything which had gone before seemed like pea-shooting. At a range where a miss seemed impossible, the similarity to a boiler-shop at work cried aloud to heaven. Still, half an inch of "Schwab-1935" steel laughs at even a 1920 anti-tank gun, and the vehicles moved onwards unruffled . . . all except one.

It seemed a cruel piece of fortune. Just what happened seemed impossible to guess ; but as the tail of the column followed in the sharp turn to the right by Chalk Hill, the last tank seemed not only to be in difficulties, but to be so at just the one point where none of the others could see it. The tribesman notes such things instinctively. Slowing down sharply, it did an awkward half-turn, and then stopped dead. For a few seconds the engine raced loudly, and then sputtered out into silence, whilst a thin column of black oily smoke began to curl upwards from the tank's roof.

For maybe a minute the tank's guns fired furiously at the cliff-tops and at every apparent target within range, whilst the smoke column grew steadily in intensity. Then it became ominously still, and fresh wisps of smoke, growing steadily in intensity, arose from under its radiator cover-plates.

Clearly a tragedy had come about. At first the enemy was highly cautious, and merely redoubled his fire. Then, with the ill-fated tank almost enveloped in heavy black smoke, a bold spirit rushed to within thirty yards and threw a hand grenade. As it burst, a further cloud of smoke went up, but no sound from the tank's machine guns. That was enough. A dozen hardy spirits took one look, and rushed towards the tank, firing as they came.

They got within a couple of yards, when something seemed to catch their breath. In an instant they fell to coughing and hawking, dropping their rifles and gripping their eyes frenziedly. In another instant they were writhing on the ground, fighting for life like drowning men, lying finally as though dead.

There was a waver of dismay amongst the further masses. Clearly the smoke of a burning tank was no matter for meddling. However, they could bide their time. From within the tank there came muffled cries and wailing, as of those in utter agony, lasting a few minutes and dying down slowly until all was deathly silence. Meanwhile the smoke, not as thick as at first, continued to emerge, as though the inside of the tank were slowly burning itself out.

The crowd grew more comfortable, and gradually, in the space of half an hour, assembled in a ring at fifty or sixty yards' distance,

waiting for the moment when it should move in to tackle the tank like a dead winkle. All seemed well : the rest of the column had long since wound its way to the Ahnai ; the hill outposts made no sign of further tanks coming up the valley. It was curiously hot and still. . . .

Suddenly, without a jot of warning, the tank's two Vickers guns opened in full blast. Men fell in swathes before they had time to rise and run, those unhit ran with the blind fury that only utter panic can bring. Up the foothills they streamed in fell disorder ; and even as they streamed two silver-grey aeroplanes danced and curved down at them, spitting unending bullets fore and aft as they came, caracoling for joy in the spring air.

From the “dead” tank there came the even roar of an uninjured engine ; as the clutch went in, the vehicle seemed to shake itself like a dog ; in a moment it was making a slow tour of the close area of devastation. Men still alive dragged themselves up for a shot or a curse : futilely the bullets pattered on the tank's walls ; scores of men there were who moved not again. After a brief survey, the tank regained the road, and scuttled along it at an unlaboured fifteen miles an hour to catch up its company.

Inside it, the captain's face was close to “V-T-R” ; he was talking excitedly to the commander :

“Success, sir ? I couldn't have dreamed of its extent. Those smoke bombs did the trick, especially the ones tied under the roof and the radiator cover-plates. They thought us fairly on fire, and the toy farmyard band made them put us down as all dead. I had to turn a little chloroformate gas on a dozen who wanted to jump on us too soon : they'll wake up this evening. After that they sat round at sixty yards, like vultures. We counted a hundred and seventy-three on the flat ground, but there must be scores more hit. Reynolds and another bus came and gilded the lily as they quit for the mountain-tops. . . .”

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Two miles short of the Ahani *tangi* the company drew to a halt, and its leading tank went on to investigate. The battalion commander was busy at “V-T-R” : in the ribbed mirror was a subaltern's face, also in a tank. The subaltern was speaking :

“It's a case for bridging, sir, till the sappers can do a fill-in. There's a clean cut across the road, about twenty feet wide, and may be ten feet deep : looks as though it had been started by a spate down the Zaghbir Pal *nullah* and finished off artistically by the enemy.”

"Right," said the commander ; " stay where you are. We'll fan out and keep the place busy, whilst I get some sappers and guns up. We'd better have a few infantry, too, in case of hidden corners."

He rang off. In a surprisingly short space of time a further armoured column slid swiftly up the bed of the stream. It halted with its head by Zeriwam, and from it there came forward four heavy tanks very like oblong boxes on tracks. Stopping near the old Ahnai camp of 1920, the four let down their rear doors after the manner of the " plain van " of commerce. From each there emerged in orderly haste a pack howitzer with its detachment, very like those of twenty years before, save that there was much more light armoured protection in evidence for the pieces, men and materiel. In a few minutes both cliff-tops of the actual Ahnai *tangi* were alive with the unpleasant bursts of 3'7" shell. Overhead two aeroplanes manœuvred to observe and report results.

Shortly afterwards four more heavy box-tanks, of a similar type, but adorned with large red triangles, moved up to the tangi mouth at which the road was cut. One opened its rear doors, and there alighted a detachment of sappers. They carried components of a forty-foot Inglis tank bridge and its erecting gear, every part cunningly designed so that two men at most could manhandle it. As the howitzers lengthened their range, the detachment commenced work by the edge of the gap. There was a burst of fire from within the *tangi*, and one or two fell. Almost at the same moment a Vickers gun opened up from the front of the engineer tank, and under cover of its fire the casualties were quickly carried back to the tank. The remainder of the detachment put the bridging gear on the ground, and also regained the tank.

The howitzers shortened range again, and for a few minutes it seemed as though nothing could live in the *tangi* or on its sides. After an interval the sappers emerged from their tank again, and recommenced work. Another sharp but lesser burst of fire broke out ; again one or two fell, and again they regained their tank with the casualties. The tank battalion commander turned to " V-T-R " and issued some quick orders, after which he moved his switches, and the dull mirror showed an older face—the force commander's.

"I'm afraid we shall want infantry, sir," said the battalion commander : " There's a pocket of enemy in a cleft in the Ahnai that we don't seem able to reach : they've knocked out some sappers, and bridging is delayed until we can dispose of them."

A couple of minutes later three more " box " tanks left the main column, heading, as directed, for the western side of the Ahnai away

from its opening, near point 3753. They were marked by broad black and white vertical stripes up the centre of their sides. Arrived at the cliff's foot their rear doors emitted some forty infantrymen, whose coats seemed curiously long and quilted, but devoid of equipment save for rifle and bayonet, ammunition, and some small bombs. These advanced in the “ old ” style over ridge 3753 towards the *tangi*, whilst the howitzers lengthened range again. A quarter of an hour later there was heavy firing in the *tangi*, varied by the coughing explosion of bombs, shortly after which a scattered dozen of tribesmen could be seen running up the *tangi*, towards Asa Khan, whilst a plane dipped to pepper them as they ran. Three green Very lights in succession soared up from the infantry, followed by a red one, indicating respectively that the coast was now clear, and that stretchers were required. The infantry subaltern was talking to the jemadar as they walked. . . .

“ I told you, jemadar-sahib, that you would find these coats quite light even in a real battle, now that we're spared all the weight of packs, haversacks and the like. They're very light for what they do ; there's not a '303 or '450 bullet in the world that can get through their steel ring-armour ; if you're hit on them you only lose your wind, or at worst get a broken collar-bone or rib. It was bad luck on Ali Jan and Gul Mahomed, of course ; but a bullet in the head is a bullet in the head, and one in the leg is just ill fortune. Years ago, it would have cost us half our number to rout out that lot of Mahsuds. . . . ”

Whilst the infantry and its two stretchers—one covered all over with a blanket—were regaining the infantry tanks, the sappers were hard at work. This time all four engineer tanks had disgorged their contents, and no answering fire came back from the *tangi*. Three detachments were assembling the Inglis bridge with the pace of an Olympia exhibition, whilst the fourth was hard at work with pick, crowbar and gunpowder making a “ fill-in ” of the gap some way westward of the bridge. Long before the fill-in was half completed the bridge was ready ; and the company of light tanks, swept over it and through the *tangi* towards Sorarogha, its local protection duties handed over to a similar company.

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It was four o'clock on the same afternoon. In a large and comparatively flat space outside Makin, the entire armoured column which had left Khirgi that morning, less only one of its ambulance tanks and a light tank in escort, was hard at work trying to make itself comfortable and safe. Far off, a curious vehicle like an enormous watering-cart, escorted by a single light tank, was uncon-

cernedly sucking water from a stream through a great armoured hosepipe, till it should have inside its great belly the first load of 1,200 gallons of water to take back to camp, where a high-pressure sterilizing plant tank would speedily transfer them to the collapsible steel tanks already erected on the ground there.

The camp was a seething but ordered hive. At various spots were groups of tanks which suggested nothing so much as the car parks at Epsom on Derby day, the outer ones forming a gapped wall. Sixty yards or so outside this was the actual perimeter, along which men in the long quilted coats of the infantry were quickly unrolling lengths of ready-made wire fence of a redoubtable type. Dotted among them at intervals were light tanks, on protective duty against an artillery-less enemy, and machine gunning with zest any enemy so foolish as to come within range. Each of them now bore on its turret-top a small armoured searchlight. Inside the camp a couple of howitzer sections were amusing themselves with a little useful registration. In a selected spot was headquarters, a close-packed zareba of eight heavy tanks with four light ones forming bullet-proof gates at the corners—an iron “village,” impervious to everything save the gun-fire which the enemy could not give it. Elsewhere was a hospital of three ambulance tanks drawn up triangle-wise, dealing with the seventh and eighth casualties of the whole advance. An old-time inquirer could have found a world of interest in the group of “maintenance” tanks. All equally bullet-proof, there were great petrol-carriers, oil-carriers, ration-carriers, but no forage-carriers! In special tanks with broad green and white stripes there were strange things: little cylinders of a strange chemical whereby the interior of any tank could be made not only pleasant but even cold on the hottest day; cylinders of oxygen for use when, as that day at Mandanna, a tank had to seal itself hermetically from inside whilst emitting gas outside; and bright scarlet cylinders with special nozzles, whose bellies bore in white such legends as “Chloroformate,” “Neo-Phosgene,” “Picro-Mustard,” and the like.

* * * * *

Next morning, in the inky darkness of two a.m., when human vitality is at its lowest, the enemy put forth his finest bravery in a night attack, pressing it home as only the desperate can do.

Only at one point did he get past the unceasing waves of machine-gun bullets from inside steel walls where a lucky shot had temporarily put a searchlight out of gear. There he got through the wire and, in the “lane” between the wire and the outmost tanks of the main

camp, he was dealt with to a finish by machine-gun fire aimed insouciantly in all directions, since there were only tank walls, not friendly troops, to be hit.

By three o'clock it was over. By dawn next day the full news of Mandanna and the Ahnai had reached Makin, and the sun rose over the hills amid a curious quiet. . . .

* * * * *

Two weeks later, at the edge of the camp the half-moon of a great *jirga* sat at twenty yards facing three little tables, commanded by the ready muzzles of a score of machine guns in their steel forts. Its spokesman was a fine upstanding old Mahsud, of dignified mien, which was not lessened by the deep henna which dyed his beard and hair.

" It is of no more avail," he said, in firm, sad tones. " We cannot fight you. More than a thousand of us you have killed, your own hospitals are empty. You hold our passes and our plains ; everywhere we move your accursed machines bring terror to our elbow. Only in the steep arid mountains can we escape them, where there is neither grain to eat nor water to drink.

" Give us but terms that we can keep, peace and a cessation of death ; and we ourselves will hand over to you alive or dead each miscreant who shall fire a shot at you or yours."

The *jirga* murmured unquestioning approval. The chief political officer rose at his table, and replied :

" Our terms you know. Two thousand modern rifles, and two hundred thousand rounds of like ammunition. These you will not need, they are as water against us, whereas from henceforward your protection is our affair, not yours. Furthermore, you shall pay, and that equally within fourteen days, three lakhs of rupees, so that we may make restitution to those loyal subjects and their families whom you have oppressed. Lastly, such envoys from Moscow as may still be within your territories shall be hunted down ; and, if they do not escape over the border, they shall be handed over to me, whilst death shall be the penalty for all who harbour them.

" Until the weapons and money are handed over, the whole force stays here. Thereafter, since you have shown yourselves unfitted to maintain the tranquillity of your country, armoured garrisons will remain at such posts as we deem fit, during His Majesty's pleasure. Moreover, to each and every act of hostility to our forces, we shall make such armoured rejoinder as appears fit and that straightway.

" Do you accept ? "

A heavy sigh came from all the assembly, whereupon its venerable

spokesman took his turban from his head and cast it down on the ground. . . .

* * * *

"Well, thank goodness that's over," said the light tank battalion commander as he made tracks for the mess tent, pitched in an alley-way of tanks. "Come on, lad, now for a quart of tea to get the dust out of our throats." He beckoned to an infantry subaltern of his acquaintance near by.

"Lord," he said reminiscently as they sat over the meal, "how times have changed! You boys of to-day don't know you're born. Here we are, two weeks' work, not two dozen casualties, and the thing's over. When I came up here twenty years ago on the same little errand, it took us a month and fifteen hundred stretcher loads to smell the far side of the Ahnai tangi.

"By the way," he added quickly; "wasn't it you who went ferreting there with your men when the sappers couldn't get on with their bridge?"

"It was, sir," replied the subaltern with a cheerful grin. "And great fun we had, too."

"I hear you actually got close up to them before they bolted," said the lieutenant-colonel.

"We did, sir," came the answer. "They weren't for moving much until we gave them a rifle grenade or two. Even then some stayed on for dessert. As a matter of fact, I stiffed two with my revolver."

"You archaic blighter!" laughed the elder man. "Why, I didn't know any one ever really used a revolver nowadays except for spoon shoots."

"Well, you see, sir," said the subaltern, "I rather wanted to get close if I could." He spoke shyly, as to an older friend. "I had something to get back on this lot of tribesmen. Specially at the Ahnai tangi itself. My father was killed there in 1920, together with more than fifty of his company."

The lieutenant-colonel's face twitched in a quick spasm. "Good Lord!" he ejaculated. "Not with the 160th?" he asked sharply. The subaltern nodded.

The senior's eyes half closed, then opened suddenly. "Your name . . ." he said slowly. "Fancy me never realizing. . . ."

"Did you know him, sir?" asked the boy eagerly.

"I did," said the older man, as his eyes lit up and his hand went out towards the lad: "He was my company commander when he died. . . ."

THE FIRST GERMAN TANK ATTACK AT VILLERS BRETONNEAUX ON THE 24TH OF APRIL, 1918

(With Map)

BY ONE WHO WAS ATTACKED

ON the 24th of April, 1918, the 8th Division was holding the line in front of Amiens, when Ludendorff made his final effort to break the front in that sector.

The French Army was close on the right of the 8th Division, and the attack was made on the junction of the two Armies.

It was a very strong attack, the bombardment being the heaviest that the writer had ever experienced. The earth quaked with terrific explosions, and the noise created was similar to that of a continuous beating of a drum, each beat being the explosion of a heavy shell.

Owing to the dry state of the ground, the air was thick with dust, and gas shells necessitated the continual use of gas respirators ; as a result the troops in the front line could hardly see more than a few feet in front of them. Great difficulty was experienced in attending to the wounded owing to the wearing of respirators.

The writer's company was in the front line, three platoons in front with their right on a deep railway-cutting, and the fourth platoon and company headquarters about 120 yards to the rear.

The battalion had two companies in the front line, one in support and one in reserve.

It was known that an attack was impending, as the enemy had registered on our trenches during the morning of the 23rd of April, and the news was confirmed by an Alsatian deserter who came across to our lines on the night of the 23rd-24th of April.

The writer's first intimation of the attack was a sudden, accurate and deadly fire on his support platoon, and practically simultaneously he heard his front line open fire. The nature of this machine-gun fire was unusual ; it raked the parapet, and any man who put his head up was shot down immediately. The writer gave the order to his men to keep their heads down, as it was obvious that something

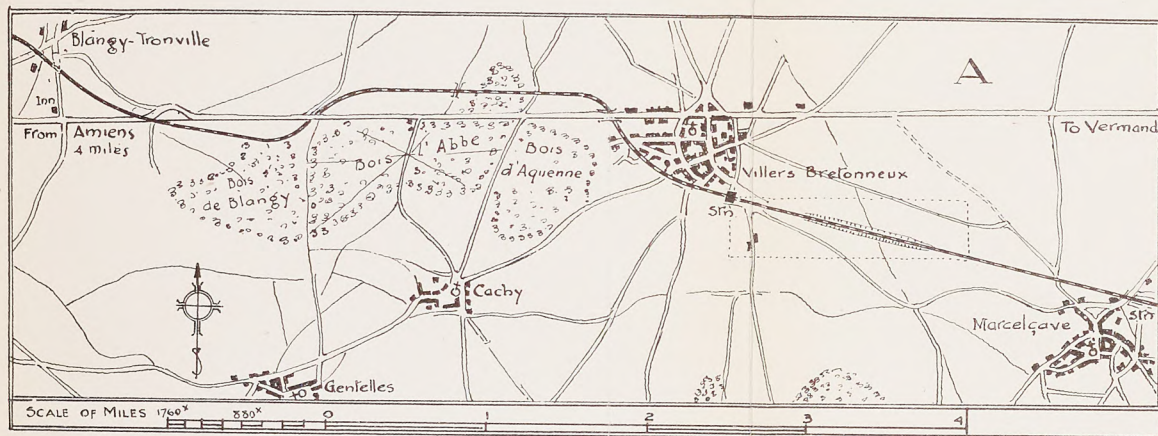
quite unusual was occurring. Suddenly the machine-gun fire ceased, the writer put his head up and saw an enormous and terrifying iron pill-box, bristling with automatic weapons, bearing straight down on him. He lay down in the trench on top of a diminutive sergeant, who had already taken this precaution, and the German tank, for such it was, passed right over them. The writer thought that his end had come at last, but after seeing the tracks of the tank pass about 3 feet above his face, he got up, turned round and fired a '32 automatic pistol at the water jacket of the machine-gun at the stern of the tank. As he did so, a shot rang out, preceded by "look out, Sir," and a huge German crashed into the trench, plunging his bayonet into the back of the trench, leaving his rifle stuck in the parados instead of in the writer's back. The writer then saw about half a dozen German infantry running towards the trench, but they were all shot down, the writer accounting for one after having hit him three times before he actually fell.

Looking over the parapet the writer saw a second tank proceeding along his front line trench, not crossing it, but running along it from end to end. The men of the front line trench were either shot down in the trench, crushed, or shot down as they jumped out of it. In the latter case they were shot at both by the tank machine guns and by the German light automatic gunners, who had taken up a position some twenty-five to thirty yards from the trench. In addition, the left forward platoon was swept by fire by a *flammen-werfer*, and dense volumes of black smoke rose close to them. Fortunately the flames hardly licked the parapet, although a number of men were scorched and had to throw off their equipment and jackets.

Having dealt with the front line trench, the second tank turned and made for the writer's trench, and a third tank appeared, followed by German riflemen. The riflemen proceeded to bayonet those men left in the front line trench, and the third tank then began to run down the writer's trench from end to end. The writer, acting on the assumption that "he who fights and runs away, lives to fight another day," did not wait to be crushed to death but took to his heels, making for the railway-cutting with his little sergeant and the remnants of his men. All except five were shot down by the second and third tanks.

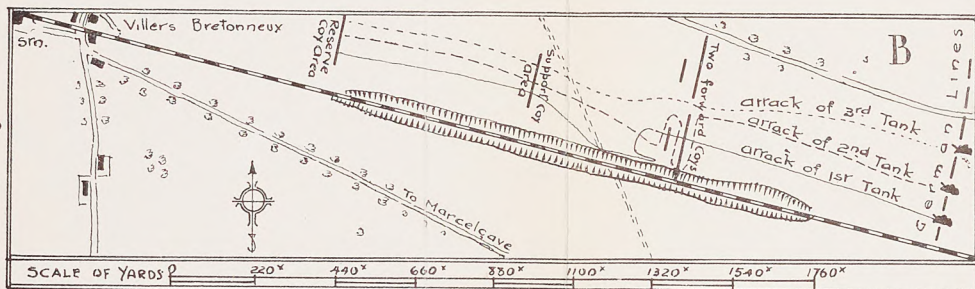
The first tank turned towards the cutting and opened fire with the near-side machine gun on the writer and his men as they rushed down the railway line. Fortunately for the party, the gun could not depress sufficiently and the shots passed over their heads.

The writer removed his collar and tie in order to breathe more freely, and succeeded in getting ahead of the German infantry, who

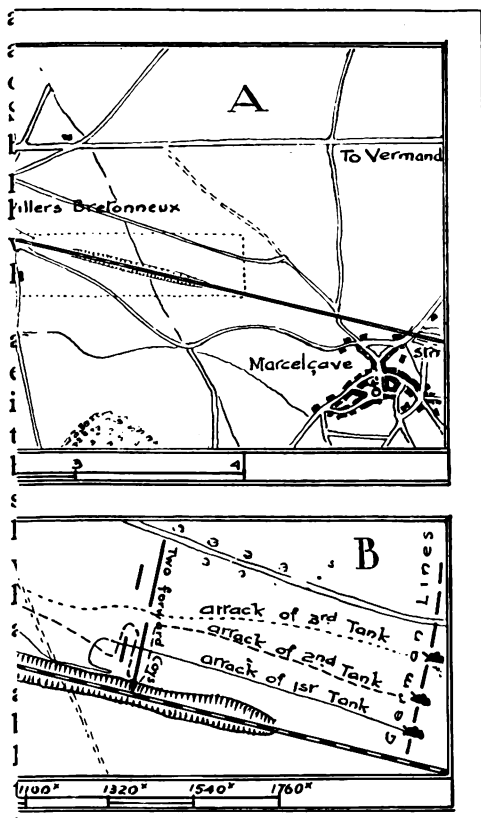


REFERENCE

MAP B IS AN
ENLARGEMENT OF
THAT PART OF THE
GENERAL MAP A
ENCLOSED IN DOTTED
RECTANGLE S. E.
OF VILLERS -
BRETONNEUX



[To face page 382.]



[To face page 382.]

had passed over with the tanks, but who had neglected to attack down the railway-cutting. In case the writer may cause the impression that he showed the white feather he can only say that he did fight again as soon as he had left the tanks behind him.

In actual fact he collected a party of men of various regiments and organized a counter-attack, in which he was wounded in the chest whilst removing the sights of a field gun battery which was being rushed by the German infantry. The German barrage had passed over them in the front line, they had run through it again, it passed over them at the battery again, and then they had to pass through it again for the fourth time.

When he was on his way to the first-aid post the writer met the brigadier behind Bois de l'Abbé. This position was the key to the defence of Amiens and thus to the whole of the Western front, owing to the fact that the one and only railway line remained in this sector. From this position the bulk of our Divisional Artillery could be seen with the naked eye. Many of our guns were in front of the Somme, and a retreat would have been a disaster.

With the brigadier was a company commander of the Tank Corps. On hearing from the writer of the German tank attack an order was given to the British tanks to attack the German tanks. The sequel is known. The encounter took place near Cachy and the German tanks were utterly defeated.

At nightfall the Germans had occupied the outskirts of the Bois de l'Abbé, when an Australian brigade counter-attacked without artillery preparation and the line was re-established.

Whether the British tank counter-attack or that of the Australians, or a combination of both, saved the Amiens sector on that occasion is a debatable matter, and one on which the writer is not qualified to express an opinion.

THAT "MIDDLE PIECE"

BY ONE OF THEM

It has become the fashion since the war to say, with reference to officers, that the Army has a weak "middle piece," or, in other words, that the senior and junior ranks are very good but that the majors and senior captains are weak.

What is this disease that is alleged to attack officers at the time when mentally and physically they should be at the height of their powers? We may, perhaps, be able to unmask the bogey if we draw a parallel from Einstein.

If we stand on the earth and drop, say, an apple from our hand, the apple appears to fall to the earth; or is it that the earth rushes up to meet the apple? If we imagine ourselves falling out of an aeroplane and repeating the experiment we find the apple will not leave our hand, but in this case the earth apparently rushes up to meet us both. Clearly then, there is something wrong with our idea of gravity. Its apparent effect depends on the relative position of the observer. Einstein arrives at the truth by realizing that the world is curved and events must be measured on a four-dimensional frame from the centre of things, and not on a purely terrestrial three-dimensional frame, if we are to arrive at the absolute truth.

Similarly, in gauging the value of an officer, are we not liable to measure him relative to our own particular point of view rather than from some absolute standpoint? Further, are we not inclined to measure him on a rather limited frame by the qualities that are obvious and bring themselves to our notice? It is suggested that the efficiency of an officer should be measured on the four-dimensional frame of character, knowledge, energy and age. Ability is, presumably, not in question in the case of the average officer, and is not so much a quantity to be measured as a quality inherent in the type, and we are here considering the officer of good average ability only.

If we apply this test we shall see that the excellent subaltern is merely excellent for his age, and the quality by which he is usually measured is energy ; great knowledge not being expected. The junior captain has acquired more knowledge and his energy is probably not impaired, but rather increased as the value of study is appreciated. He is at the same time practically formed in character for good or ill. Still, as he leaves the platoon and becomes more the organizer behind the scenes of a company, his qualities may not be so fully appreciated because they are more difficult to measure.

When we get to colonel and to higher ranks all the qualities are more developed, and energy, which is now more mental than physical, should, with the increased interest of command, be again very noticeable. But it is not easy to measure senior officers by the dimension of age. They may appear very good, but are they as good as they should be for their age ? That test can probably only be applied in war. It was very noticeable how the young men rose to command during the War, thus proving that they were probably equal to, or more efficient for their age than, the older men. There was no talk of a " middle piece " in those days.

How does the " middle piece " stand this test ?

If we are to admit that the Army is, on the whole, in a thoroughly efficient state, we must admit that the orders of the brigadiers and colonels are efficiently carried out. On whom does this responsibility fall ? Surely on no one more than the majors and senior captains. There can, therefore, be no reason to infer inefficiency on their part. The reason for the imputation lies in the fact that their work is quietly and efficiently done, and does not come to the notice of the senior ranks to the same extent. They are not primarily responsible for the training policy of a unit, but for the interpretation of that policy into fact. The platoon commander is more likely to catch the eye of an umpire or inspecting officer than a company commander, because he is the man actually giving verbal orders or instruction. The company commander's work is done more behind the scenes and by written orders, and is therefore not so noticeable. There is no reason to suppose from this that he is inefficient. In fact, it is submitted that the " middle piece " is the backbone of the regiment or unit.

The " middle piece " has reached the age when character is formed, and presumably well formed on the average, judging by their subsequent efficiency as colonels ; knowledge has reached a state where there is not much more to be learnt about their par-

ticular work, and they should be acquiring knowledge to fit them for command. Keeness may be slightly dulled by many years of repetition, but is only waiting to be excited by the responsibility of command. This is where it is submitted there is room for a little encouragement and help from above, and is more than probably whence the charge of weakness has arisen. It has already been said that many of these men were holding positions of responsibility during the war, and there is no reason to suppose that, given opportunities, the necessary qualities for command would not manifest themselves. Any weakness in knowledge or energy is more due to the lack of opportunity to display it than to its absence, and it must be at least open to argument that the "middle piece" of the present day has more knowledge for its age by virtue of war experience than the standard of measurement demands.

It has been admitted that there is a certain lack of keenness in some cases in the "middle piece," and it will be interesting to attempt to trace the causes of this.

It will readily be agreed that continuous service with a regiment is bound to lead to boredom and lack of keenness. It should be possible for a subaltern to learn all that it is necessary for him to learn about a company in about four years, if he is ever going to learn it. After that he should, if possible, get away from the regiment for a time and gain experience. The chances of doing this are becoming fewer every year, as Colonial regiments are disbanded, but there are still opportunities for the really keen man. When he comes back to the regiment he will then be fresh and able to enter into the regimental life again with renewed interest. He then has the opportunity of getting into the Staff College, and the work necessary to qualify for this examination is of great assistance in improving his knowledge even if he is not fortunate or clever enough to get a place. It is, however, very questionable if the continual efforts to get in, year after year, entailing repetition of work over a somewhat limited field, are desirable. The reading required is all excellent education for a year or two, but the competition is so keen that all other reading is practically impossible. This is not desirable for more than a year or two. The only solution to this appears to be to enlarge the Staff College and give more men a chance to do the course, which is the natural sequel to the preliminary work. For those who fail there is nothing else to work for, and reaction is almost inevitable. Many officers fail to get in who would undoubtedly benefit enormously by the course. It is not every one who can hunt up knotty points of law against time,

though it is doubtful if they would make any the worse staff officers for that failing.

It is suggested that if the Staff College cannot be enlarged there should be some school, other than the senior officers school, to which officers who qualify might be sent for a year to carry on the work, improve their general usefulness as regimental officers and give them some grounding in the work of a staff officer. It is certain that, in another big war, most of the regular officers will eventually be required for staff appointments and training. If they have had some instruction before, the efficiency of the national army will greatly benefit and the time taken to settle down into an efficient machine will be greatly reduced. The need for trained officers was very apparent in the Great War, and we had to learn by mistakes which were costly and might have been decisive.

Another cause of lack of keenness is that, after failing to obtain a place at the Staff College, an officer has nothing further to work for that can bring him financial advantage. It is, unfortunately, only human nature to expect some return for exceptional labour, and the impossibility of increasing earnings by extra work is one of the great drawbacks of the service. It may be argued that promotion by selection gives an incentive to extra labour, but though this may be true to a certain extent, it is certainly not generally appreciated. It is suggested that officers who pass the " middle piece " school should be given some financial reward according to the standard they attain at the end of the course.

Another cause, which may lead to apparent lack of keenness, is the family. The " middle piece " is at the age when the responsibility of a young family weighs most heavily, and when interest is naturally and rightly centred in the home. A married man has not the same time to give to recreation, and very often financial difficulties restrict his activities in the way of sport, travel, etc. His position as an officer calls for a considerable amount of entertaining and the keeping up of appearances altogether beyond the pay of his rank.

If marriage is to be recognized as at all desirable in the Army the allowances of the young married man should be increased to a point where he can keep up the necessary appearances and have something left over for improving his general education by travel. Compared with any civilian of his age he has to live on a very elaborate scale. As he has little or no chance of increasing his emoluments by extra work it is rather natural that he should tend to become somewhat mechanical in his work. If allowances were only

based on the actual cost of living instead of on some arbitrary utopian scale, he would not be so badly off. Then again, regulations might be made slightly more flexible so that, when an officer is put to exceptional expenses on change of station, he might receive at least his out-of-pocket expenses. No business firm would expect an employee to travel abroad on their business and be out of pocket to the extent that an Army officer often is when landed in some expensive station abroad.

To sum up, it is submitted that the "middle piece" is not weak, but, if looked at from the right point of view, is very much the backbone of the regiment or unit.

It does, however, suffer from certain disadvantages which tend to make it temporarily less conspicuously keen. These disadvantages might be removed by devising some incentive to extra labour, and so fitting them for the posts they will be called upon to hold in war. If more officers are given a chance to increase their emoluments by hard work, the extra expense will be fully justified by results. There must be an object in life, some definite goal to work for, just as much as there must be an object in a campaign.

CORRESPONDENCE *

To the Editor of THE ARMY QUARTERLY.

SIR,—Having read since the Great War a reasonable amount of military history, and in particular the First Volume of the Gallipoli Campaign, the following thoughts have been suggested. In the first place it appears to be the case that troops fresh to the last War, and I suppose to any war, Regulars or others, were not able to apply the principles of tactics until they had had experience. This may sound rather a startling proposition, but if the individual will consider his own feelings in his first experience of fighting, he may be constrained to agree. As a Territorial officer I well remember my own feelings on arriving at Gallipoli some time after the original landing. There was no excitement, although when we got ashore the various advices and orders we received were distracting enough ; we got to an area, were told to dig in, and we dug in ; so far so good, but when holding the line for the first time, one suffered undoubtedly from what might be called a tactical inferiority complex. We did not know what to do. We saw the lines of Turkish trenches, we knew our own lines—more or less ; but we were disinclined to take or to suggest taking the initiative. Was that attitude peculiar to us or was it common ? In the Gallipoli History referred to, is told the story of the landing at “ Y ” Beach ; it took place at the same time as the other original landings, and was unopposed ; over 1,000 troops were landed, their rôle being to join in with the drive towards Achi Baba. As is well known the troops at “ V ” Beach and other landings made little headway, and there was no drive towards Achi Baba. The operation clearly was not going “ according to plan.” What should the troops at “ Y ” Beach have done ? I do not venture to answer this question, but what they actually did in this offensive was—nothing ; and although they beat off a night attack, their moral when the next morning came had gone, and

* It is hoped that readers of *The Army Quarterly* who are interested in any particular military subject, more especially matters connected with the organization, administration, equipment or training of the Army and Territorial Army, or of the Royal Air Force, will avail themselves of the opportunity afforded them in these pages of expressing their views shortly or of asking for information.

they were re-embarked—and yet these were splendid troops. My suggestion is that the senior officers were ready and willing to carry out the orders issued, but that when it became clear that the anticipated advance was not being made, they lacked initiative to produce a plan of their own, because they had no previous experience in war. Was this factor also not an important one in the failure of the Suvla Bay landing? Is it conceivable that the officers in charge at “Y” Beach after experience of war would have sat tight and done nothing? No, the troops would have been moved, and, no matter where they had been moved, they would have pulled weight. To put it shortly, experience developed the initiative in leaders, and the taking of the initiative made it possible to take advantage of any favourable tactical situation.

A further very important question arises, namely, were subordinate commanders in the late war encouraged to develop their own initiative? It is obvious that in major operations little scope could be left to subordinates, but in minor enterprises were battalion and company commanders encouraged to think for themselves? Were brigade commanders, for instance, not inclined to undertake the work of battalion and even of company commanders? I will give an example of what I mean, and the front on which the incident occurred need not be mentioned. A certain company had acquired intimate knowledge of the enemy's night dispositions in an expansive no man's land; the platoon commanders were excellent; the company commander suggested to his commanding officer that a particular post could be rushed without much difficulty by a platoon or two; the commanding officer approved the suggestion, but felt obliged to obtain the sanction of the brigade commander. The latter said, “No; I have a scheme, and meantime you will send patrols out nightly, draw fire, and retire.” This was done for twelve nights or so, while presumably the brigade commander was hatching out his scheme. Then the scheme was produced: a box barrage, the end of the box to approach the *two* companies detailed for the operation, so that, according to *written* orders, the enemy flying from the barrage would be captured. Needless to say, the whole thing was a fizzle, ending in surprising recriminations on the part of unheard-of dignatories.

The same curbing influence was seen in training. I wonder how many battalion commanders who when in the line worked out training programmes to take effect after relief, found, perhaps when the third day of training had been reached, a complete programme issued by brigade applicable to all units and not to be departed from?

Tactics must be adapted to meet the continually changing methods used in the conduct of war, and the duties of subordinate commanders are not likely to be easier in the future than they were in the past. "Infantry Training" emphasizes the need for the individual soldier carrying on in the most trying circumstances without orders. Are subordinate commanders being encouraged sufficiently by our system of training to-day to develop their own initiative? In the last war it seems to me that battalion and company commanders were often spoon-fed.

Am I wrong, or is there something in this letter?

I am, etc.,

QUONDAM.

NOTES ON FOREIGN WAR BOOKS

THE final part of the German official monographs on the battle of the Marne, 1914, and the sixth volume of the German Official History of the War are reviewed in separate articles.

The other especially interesting books of the quarter are General Weygand's *Le Maréchal Foch* and Maréchal Pétain's *La Bataille de Verdun*.

GENERAL

Le Maréchal Foch (Paris, Firmin-Didot, 5 francs), by General Weygand, is a brilliantly written little brochure of 47 pages, with an excellent portrait of the Marshal, and gives a word picture of his magnetic personality with hardly any of the definite facts which one would find in the notice of a British commander.

"Chief, Marshal Foch was in the most superlative degree. The first, dominant, impression which he created was that of prodigious force and authority. Whatever the importance of the command he had, he took hold of it from the first moment without hesitation, without hardness, but without weakness."

Without war experience he had to train himself in forty-five years of peace, and he did so by reading and meditation. He frequently quoted Napoleon's phrase: "No genius revealed to me in secret what I had to do in a situation unexpected by others; it was reflection and meditation." He "excelled in creating an atmosphere of calm and collectedness around him." Like Joffre, he had his regular hour for going to bed, and never but twice sat up all night; the first occasion "was on the 10th of September, 1914," after the battle of the Marne, when he wanted to know if the bridges of the Marne (crossed by the British farther west on the previous day) were free, in order to push on with the pursuit. The second was on the 10th-11th of November, 1918, when he was waiting to know whether the Germans had accepted his terms.

He was never depressed when removed from an appointment. Apparently he did not give satisfaction as commandant of the Staff

College, for General Weygand writes : "*Il fut un jour écarté du grand poste où son enseignement faisait vibrer une jeune et ardente élite.*" His loss of the command of the Group of the Armies of the North in 1916 is better known.

Simplicity was one of his characteristics, and he was not elated by his successes. He seldom spoke about them, and never more than to say : " We haven't worked badly," or " We have done some business."

After the war his one idea was the security of France.

La Verité sur l'Armistice (Paris, Tallandier, 3.50 francs), by General Mordacq, formerly Chief of M. Clemenceau's Military Cabinet, is designed to destroy some of the legends that have grown up with regard to the Armistice of the 11th of November, 1918. In particular, he wishes to disprove that it was granted by the Allies prematurely, that the conditions had not been carefully thought out beforehand, that they were not sufficiently severe, and that the Allied Governments were not sufficiently well informed as to the military and internal state of Germany. He is at pains to show that M. Clemenceau and Foch were in complete accord. It is in any case a useful record of the events leading to the Armistice.

He shows that the Armistice was signed on the unanimous accord of all the Allies and of their responsible statesmen and soldiers, after the acceptance of the terms proposed by Marshal Foch.

As regards the preparation of the terms, it had been known since the beginning of October that the Germans were meditating a request for an armistice, and on the 5th of October it was learned from an intercepted cipher telegram, addressed by the Chancellor, Prince Max of Baden, to President Wilson, that they were at the end of their resources and absolutely decided on asking for an immediate armistice. There was, therefore, more than a month to prepare the terms ; and on that same 5th of October M. Clemenceau directed Foch to prepare a memorandum on the subject, and Foch, in turn, requested the Commanders-in-Chief of the different Allied Armies to let him know their wishes as soon as possible. The author himself, in his official capacity, directed careful researches by the Historical Section into the conditions of previous armistices made by Great Powers. On the 9th, M. Clemenceau approved of the main principles submitted by Foch. Mr. Lloyd George at first objected to the occupation of the Rhine provinces, but " did not insist specially." By the 27th of October the terms were definitely fixed.

Had severer terms been imposed, the Germans, as we know now from Erzberger's memoirs, would have accepted them, even unconditional surrender. But it must be remembered, General Mordacq says, that all the Allied nations and leaders were tired of the war ; all longed passionately for peace. The war of movement which had recommenced had naturally brought with it heavy losses. What was going on in Germany was well known to the Allies. What they did not know was the psychological state (*état d'âme*) of the German Armies. The enemy's troops were certainly retreating, but some were still fighting stoutly. Even the German Supreme Command did not know in October that their feelings were so high that the Kaiser would be forced to abdicate.

General Mordacq also disposes of the legend that " the stab in the back " from the Homeland broke the resistance of the German Armies ; it was " the stab in the heart " from the Allies that did so.

Ludendorff, in August, and Hindenburg, perhaps not before the end of September, knew that the game was up ; in good French, as in good German, this had but one meaning, "*l'Allemagne est battue.*"

WESTERN FRONT

Marshal Pétain's *La Bataille de Verdun* (Paris, Payot, 15 francs), with eight situation maps and eighteen photographs—including excellent ones of Marshal Joffre, Generals Herr, de Langle, de Castelnau and Mangin, Colonel Driant, and the author—is an excellent summary, compressed into 150 pages, of the struggle in 1916, " the terrible duel between the two principal adversaries on the Western Front."

The Allies, Marshal Pétain tells us, expected to be attacked on the Western Front in 1916, " but their attention was particularly directed to the routes in Flanders and of the Paris region. It was, therefore, in proximity to these routes that they were inclined to keep the centre of gravity of their forces." As a result of conferences, it was settled that all the Allies should take the offensive in 1916 ; there was to be a great Franco-British offensive in the Somme area. But Russia and Great Britain were not ready for immediate action.

" It was contemplated that the combined operations would begin only at the opening of the summer. If before this moment the enemy started to assail one of the Allies, the others were to attack the hostile forces opposite them, to hold them and wear them out, and thus make their contribution to the battle."

As early as the end of December, 1915, intelligence services reported numerous rumours, mostly vague and contradictory, of the possibility of a German offensive on the Western Front. It was concluded that the points menaced were the Flanders sector, and the centre and right of the French sector, "that is Champagne, Verdun, Lorraine or Belfort." Towards the end of January certain movements of German troops, and great activity on the Meuse railways, seemed to indicate that Verdun might be the objective. It was a salient and a weak spot. The indications soon became more definite : letters found on prisoners spoke of the imminent entry into action of the Crown Prince, and of a review which the Kaiser would hold towards the end of February on the great square of Verdun. General Herr, commanding the "Verdun fortified area," supported by General de Langle, commanding the Group of Armies of the Centre, drew attention to and confirmed the reports, and demanded reinforcements to improve and hold the defences. Verdun had been neglected ; since the fighting round it in the battle of the Marne, the area had been quiet, and no enterprise against it had been attempted by the Germans ; the French had allowed the trenches, the wire entanglements, the roads, and even the engineer stores to fall into decay. "It was the calm before the storm."

The French High Command found the reports of the hostile offensive contradictory and came to the conclusion that the Germans would make powerful attacks against the Russians in the spring, but Joffre sent "a portion of the available material" to Verdun, reinforced it with two divisions and placed within easy reach two of the best corps (VII and XX).

The German preparations were made with the greatest skill : "nothing betrayed the feverish activity in the sector" ; the enormous mass of artillery was got into position "without any single manifestation seriously attracting our attention." It is interesting to find that Generals de Langle and Herr contemplated an elastic defence ; they ordered that the front position, which would be heavily bombarded, should not be too strongly held or even reinforced, in order to have reserves for the defence of the other positions. The retirement of certain batteries was even ordered. As Marshal Pétain says, they "showed real boldness of thought at a time when our training as regards the defence demanded that not an inch of ground should be given up." But he makes the criticism that the instructions lacked precision ; they spoke of "various positions arranged in depth," but did not arrange for a special "position of resistance, exactly defined and to the defence of

which all available means should be devoted." Such a position, when he took command, he selected, and ordered to be held to the last.

He ridicules the idea which Falkenhayn put forth later in his apologia, that the Germans did not mean to capture Verdun, and attacked it because it menaced their communications, merely intending to "bleed the French white" there. Falkenhayn meant to bring off a great coup; he selected a weak place, a salient astride a river; he attacked on the eastern bank first, expecting to draw the French reserves there, and then hoped by an attack on the western bank, thinly held, to bring off a second Sedan, and make an immense break in the French front. The Crown Prince's order of the day, 12th of February, is significant:

"Realize that Germany expects something great of us. . . . We must prove to the enemy that the iron will of the sons of Germany, eager for victory, is still alive, and that the German Army, when it marches to the attack, surmounts all obstacles."

It is claimed very justly by the author that the holding of Verdun during the first five days of the fierce German attack was a great success. The Allied offensive on the Somme at last brought real relief, but he reiterates so often that France was left too long—21st of February to 1st of July—alone on the stage that it almost seems he has written this book to emphasize this point as a defence of his own inaction and delays in 1917 and 1918. He admits that the French lost more heavily than the Germans in the early part of the battle, but he is sceptical of the figures put forward by the Germans for their total losses. No inference can be drawn from the number of divisions employed. The French did not keep divisions in the line very long, in order that their fighting value might be maintained; the Germans used few divisions, leaving them a long time in the line, but keeping them up to strength by drafts of reinforcements.

Marshal Pétain has evidently not read the two recently published German official monographs on Verdun, and repeats the old story, now admitted to be erroneous, of the capture of Fort Douaumont, by a Lieutenant Brandis. He omits to give the true reason that the fort was not defended, ascribing it to an oversight during the change of command of the sector from the XXX to the XX Corps. Proper orders for holding the fort were prepared in good time; but the issue of them was held back for some hours whilst copies of the plans of the defences were being traced, and in this interval the Germans walked into the fort.

His account of the organization of the road and rail transport is excellent, but all too short. Verdun seems to have been in greater danger through some one forgetting to send up steam rollers to consolidate the newly metalled roads than from the enemy's efforts to break in.

Die Schlacht in Lothringen ("The Battle in Lorraine") is a full-length official account in two 450-page volumes of the operations of the German left wing from the opening of the war until the 15th of September, 1914. This wing consisted of the German Sixth (mostly Bavarian troops) and Seventh Armies under the command of Crown-Prince Rupprecht of Bavaria, who was at the same time commander of the Sixth Army. The book, therefore, deals not only with the battle in Lorraine (20th-22nd of August), but also with the battle before Nancy (23rd of August-14th of September), the breaking off of that battle, and the retirement. It is issued by the Bavarian War Archives Department, and prepared by Major K. Deuringer, formerly of the Bavarian General Staff and now a chief State archivist. (Munich, Max Schick, 40 marks.) He has provided some eighty maps and sketch-maps, and a number of excellent photographs of the scenes of combat, and his work is thoroughly first-class military history. The only criticism one can make is that, except on the general situation maps, the French troops are not shown, although their general movements, derived from the French official account (which stops on the 5th of September) are described in the text. The German *Reichsarchiv*, Potsdam, furnished the material for the account of the movements of the non-Bavarian troops.

After an account of the peace establishment of the Bavarian Army, its mobilization and arrangements for protection of the frontier, the plan of campaign is discussed at length.

Crown-Prince Rupprecht had "a complicated and thankless task assigned to him," and the way the Great General Staff put it before him, and assembled and deployed the troops in areas close to the frontier, did not make it any simpler. The Supreme Command feared that the great wheel of the five Armies of the right wing through Belgium into France might be seriously interfered with "by a strong French force of Armies breaking through between Strasburg and Metz and pushing forward to the lower Moselle." A special position along the Nied had been prepared against this eventuality to block the space between Saargemund and the Fortress of Metz, and a *Landwehr* garrison and heavy guns provided for it.

But it was recognized that the position had only "local value" and could not hold the enemy for long or prevent him moving past it on the east.

"The left flank of the five German Armies advancing through Belgium and Luxembourg required in its entire depth from Verdun to the Rhine a reliable protection against all dangers. This protection was to be assured by Prince Rupprecht."

At the same time, he was required to hold the strong French forces in Lorraine. Prince Rupprecht was not given a free hand. His instructions were :

"The task of the common commander [of the Sixth and Seventh Armies] is to advance against the Moselle and the Meurthe—taking Fort Manonviller by the way—in order to hold fast the French forces there assembled, and to hinder their transfer to the French left flank. This task may drop out if the French on their side advance to the attack with superior forces between Metz and the Vosges. If the Imperial forces in Alsace and Lorraine are compelled by this to retire, their movements must be arranged that any threat against the left flank of the main German forces is prevented. The Sixth Army will, therefore, in case of necessity, detach troops to reinforce the garrisons of the Nied position. If the Sixth and Seventh Armies do not meet superior French forces, the cooperation of parts of the Sixth Army and III Cavalry Corps via or south of Metz in the fighting on the left bank of the Moselle may come into question. How far this possibility can be taken into account in the arrangements for the advance against the Moselle and the Meurthe must be decided by the commander. If a French offensive extends to Upper Alsace, it is not unfavourable for the situation as a whole, as long as the enemy does not push forward beyond the line Feste Kaiser Wilhelm II [15 miles west of Strasburg]—Breusch position [The Breusch river runs eastward past Feste Kaiser Wilhelm II to Strasburg]—Strasburg. To hold this line and prevent the enemy from passing west of Feste Kaiser Wilhelm is the particular task of the Governor of Strasburg."

The compiler points out that the deployment of the Sixth Army as ordered by the Supreme Command,

"certainly did not take into much account the many-sidedness of the problem placed before Crown-Prince Rupprecht. The corps were deployed too close to the frontier and to the enemy, and on too wide a front. Space was lacking in which they could be assembled to the front outside the reach of the enemy for a concentrated blow against a weak or naked spot."

If the French attacked at once, unless the Sixth Army commenced its operation by a retreat, it was in a position on the frontier far too long for its strength and weak everywhere.

Rupprecht, immediately on receipt of his instructions, began a

controversy with Moltke and his underlings, and the compiler criticizes the German Supreme Command severely for trying to cover everything and, therefore, as Frederick the Great said, "covering nothing." A determined French inroad into Alsace-Lorraine could not be prevented, but it "would effect nothing provided it did not extend beyond the lower Moselle"; but it was an absurd mistake to suggest pushing the Sixth and Seventh Armies forward to the Meurthe and Moselle against the well-armed French fortresses "without a suitable equipment of heavy artillery and means of attack." The German battering train had, however, been sent to Belgium.

Rupprecht considered that the problems could only be solved by attack, but the difficulty was the selection of the right moment. Not until the 14th of August did the situation clear; it was then certain that the French were advancing in great strength, and the only course was to retire. In the meantime the French attack on Mulhausen "had held strong German forces—almost the whole of the Seventh Army—had torn them out of their places in the great deployment and upset their assembly." Rupprecht, therefore, drew the Seventh Army to the right, abandoning Alsace, as Schlieffen had intended, and ordered it to occupy the Breusch position to stop any advance northwards.

The Sixth Army, during the 14th–17th of August, retired from the frontier, but, keeping touch with the outer defences of Metz until the 17th, it extended south-eastward from Metz to Saarburg. The Seventh Army was spread out from Colmar northward to Strasburg, but the right corps, the XIV, was with the Sixth Army.

The French had, by the evening of the 17th, exposed their hand. Leaving the frontier fortresses and pushing eastward, they were exposing

"a long spread and visibly thin flank towards Metz, a naked place, which invited a blow. . . . If this thin flank could be broken through deeply, envelopment might be possible, which would be all the more effective the farther the mass of the French First and Second Armies had crowded together and become engaged in the centre between Morhange and Saarburg."

Rupprecht announced to the Supreme Command his intention of attacking. But Moltke was timorous, feeling that a set-back in Lorraine might endanger the decision in the West. He sent an emissary, Colonel von Dommès, to persuade, not to order, Rupprecht to retire still farther. The Crown-Prince thought that there was good chance of success, and stuck to his plan. And the result

showed that he was justified. The II and III Bavarian Corps were in position to make the flank attack, and, at 7.30 p.m. on the 19th of August, he issued orders for a "lightning and surprise attack" to begin on the whole front at 5.30 a.m.

As the French were also advancing, the two opponents bumped into each other. Thus, the scene of action being broken by "extensive woods, long lakes and sharp ridges," a series of small unconnected encounter battles took place. "The French attacked in a tired and patchy manner, whereas the German blows contained a mighty power and determination," and Rupprecht put his last man into the fight. The flank attack from the north of the two Bavarian corps struck the French XX Corps (Foch's), and the 68th Reserve Division (detailed to look out towards Metz). There was "no organized resistance on the French side, as time and precautions seemed to have failed," and the German regiments found "on the battlefield and on the roads all the signs of a over-hurried flight: cast-away arms, equipment, valises, boxes and vehicles left in the lurch." By midday, French columns in retreat were reported on all sides—"the retirement of the enemy was due only in part to a voluntary decision." At the time all that was certain was that the foe was beating a hasty retreat, and the reports Rupprecht received being none too explicit, he ordered for next day a continuation of the attack. But, during the 21st, he realized "the full greatness of his victory" and ordered for the 22nd "with all formality the pursuit." A few days later in the West, in the striking wing, there was the same delusion that a decisive battle had been won and the enemy demoralized. The French were, however, by no means beaten; on the same day, the 22nd, General de Castelnau decided to halt his troops and to accept battle, and, in favourable circumstances, to attack, and the retreat came to an end during the 23rd.

On the evening of the 22nd, two of the northern corps of the German Sixth Army were approaching the Meurthe, which Rupprecht regarded as the limit of his thrust.

It is claimed that

"the Sixth and Seventh Armies had in reality fulfilled their task: The enemy had been so shaken that there was no danger of the left wing of the striking force being interfered with and strong French forces had been detained in Lorraine."

To do more in the face of the French fortifications was hardly possible. Rupprecht judged that the pursuit should be carried as

far as the Meurthe, and that a large part of the German forces in Lorraine should either be sent by rail to Belgium or join the left wing of the Fifth Army by march via Metz.

Getting no orders, his Chief of the Staff called up the Supreme Command on the telephone and in a few minutes got the answer: "Next task of the Sixth and Seventh Armies: pursuit direction Epinal." Pained and upset, Rupprecht asked for the order in writing, and duly received it. It directed him to "push forward without delay in a southerly direction and drive away from Epinal the enemy still opposite the Seventh Army in the Vosges."

During the following days, 23rd to 26th of August, the Sixth Army, with two corps of the Seventh, closed up to the Meurthe, was held up and struck in flank by the northern wing of the French First Army (Dubail's). The rest of the Seventh Army made no progress. There was a complete standstill. The Supreme Command, in view of events in the West and the retreat of the main French and British forces, was still certain that the enemy in Alsace-Lorraine would voluntarily retire and open the way to the Moselle to the Sixth and Seventh Armies, and, after warning Rupprecht on the 25th, sent him, on the 27th, an order to break through between Toul and Epinal! This was repeated in the well-known general order of the 28th—which ordered Kluck and Bülow to face towards Paris.

The order occasioned Rupprecht "earnest thought," for to break through the fortress line meant siege warfare, and he possessed no heavy artillery for the task. He felt that the proper thing to do was to wait until the success of the right wing near Paris opened the way for him. The Supreme Command began to get impatient, there were heated conversations on the telephone, and the Bavarian Plenipotentiary at German G.H.Q. entered a protest. On the 30th, an emissary of O.H.L., Major Bauer (who lately died in China), appeared at Rupprecht's headquarters. He said Moltke expected serious resistance near Paris, and wished the Sixth Army to "break through between Toul and Epinal, and fall on the enemy's flank and bring about the decision." Thus the original rôles of the two wings were reversed!

Major Bauer further stated that the break-through should be preceded by the fall of the Nancy position, which covered Toul. "He pictured the attack as easy, and, in the name of the Supreme Command, placed the heavy artillery of the fortresses of Metz and Strasburg at the disposal of the Prince."

Thus an entirely new task was given to Rupprecht. But that

evening, in the presence of Major Bauer, the preliminary orders for the attack on the Nancy position (Grand Couronné) were given. The compiler expresses doubt—without mentioning the case of Lieut.-Colonel Hentsch—whether Bauer had the “full powers” which he claimed to have been given. Although Bauer, unlike Hentsch, lived for many years after the war, “it remains a subject of controversy”! Confusion at once arose, for when Rupprecht that evening informed O.H.L. that he was making preparations for the attack on Nancy, he was thought to be referring to the attack on the line Toul—Epinal. The misunderstanding was not cleared up next day when the Prince’s liaison officer returned from O.H.L. with a written directive which said nothing about Toul—Epinal, instructed him to contain and hold French forces at least equal to his own, and added, “the attack on the Nancy position is not necessary as first and immediate. The Army must take precautions to guard itself against Nancy, so that the enemy cannot drive back its right wing and cut its connections with Metz.” Rupprecht was, however, left a free hand, and as he wanted to give his troops a rest and had to collect heavy artillery, he decided to stand by the orders which he had already given for the attack on Nancy, with the bombardment beginning at the earliest on the 2nd of September.

On the 2nd of September Moltke became suddenly delighted with the doings of the Sixth and Seventh Armies, and congratulated Rupprecht in detaining “about thirteen French corps.” Actually, on this day, there were in the First and Second Armies on his front only seven corps and three divisions. The Chief of the General Staff “approved both of the break-through between Epinal and Toul, and the attack on Nancy, but without any overhaste and on a well-thought-out plan, so that there might be no mishaps or failures.” It was important to seize the right moment when the successes in the West drew away the defenders of the eastern gateways. “That Major Bauer had overstepped his full powers and forced the Sixth Army to an attack on Nancy was not in the least unfavourably judged by the Supreme Command.”

The heavy artillery of Strasburg and Metz allotted to Prince Rupprecht was for the greater part without transport, and had no formed ammunition columns, and it merely “acted as a leadweight” to Rupprecht’s Armies and took time to bring up. Meanwhile, his men

“lay in the fire zone of French heavy fortress artillery—the helplessness in the face of the hostile gun-fire was only too clearly evident. . . . The

situation became one of fortress warfare. The troops were divided into three echelons : outposts, units in readiness, and reserves."

In fact, the Bavarian official history states that trench warfare (*Stellungskrieg*) began on the 29th of August. The German official history Volume V has announced that the date was the 3rd of November.

So far from waiting for the Germans, the French attacked them as opportunity offered. On the 3rd of September, the day on which some of the heavy guns came into action, Moltke again changed his views. Things were going so well in the West that it was "not necessary to force the fortress doors on the Upper Moselle; they would open of themselves." But Rupprecht was already committed. To cover the deployment of the heavy guns, the German infantry had worked forward, with varying success, and, in the midst of the bombardment, on the 5th of September Moltke inquired if Rupprecht could spare a corps each from the Sixth and Seventh Armies for the West. He was informed that the Seventh Army could give up the XV Corps (which the B.E.F. met on the Aisne), but no other. Eventually, orders were sent that the XV Corps should be ready to move on the 9th, followed two days after by one corps of the Sixth Army. Rupprecht, however, decided to continue the attack.

Next day, the 6th of September, the Chief of the Field Ammunition Supply arrived at Rupprecht's headquarters, and demanded the handing over of heavy guns and the necessary ammunition for the attacks on Antwerp, Paris, Verdun and Toul. There were, of course, protests, with no result. On the 8th, all the ammunition trains were diverted, and at midday Moltke decided "to abandon completely the Lorraine enterprise, as it had no hope of success," and sent the following order :

"A rapid advance of the Sixth Army over the Upper Moselle with its own forces appears questionable, and early assistance from the Fourth and Fifth Armies in the direction Neufchateau—Mirecourt is not to be counted on. It is intended to withdraw further large portions of the Sixth Army. Preparations are to be made for this at once. The heavy artillery not definitely part of the Army, particularly that drawn from Metz, is to be freed as soon as possible for other purposes."

Rupprecht went in person to the Supreme Command to protest, and Moltke received him with soft words, and on Rupprecht assuring him that the French resistance would soon collapse, he consented to a "temporary continuance" of the attack. Meantime, a liaison officer with written orders to stop the attack was on his way to

Rupprecht's headquarters. The Prince, to end the shilly-shallying, after ascertaining from his corps commanders that the immediate capture of the advanced position of Nancy could not be expected, decided definitely to stop the advance.

On the 10th of September, in accordance with O.H.L. orders, the Sixth and Seventh Armies retreated to take up a defensive position inside their own frontier. The operations had failed. The Bavarian losses are estimated—it is admitted that reliable figures are lacking—at 66,000.

Some strategic and tactical problems of Colonel C. Hierl on the Marne campaign have already been reviewed in these pages.* He has now published two sets on the battle of Guise (known to the Germans as the battle of St. Quentin), 28th–30th of August, 1914. They deal separately with the German and French sides, and are called *Studien über die Schlacht von St. Quentin (28–30 August, 1914), 1 Teil. Die deutsche Führung vor und in der Schlacht,* and *2 Teil. Die französische Führung vor und in die Schlacht* (Berlin, Mittler, 1.80 marks each without map, which is issued separately at 2 marks).

The battle of Guise, having been an encounter battle fought in the open, is particularly worthy of study. Colonel Hierl gives us the material. He sets problems on the battle giving as data the information available at the time in the general and special ideas. He discusses the solutions and provides the answers adjudged correct, quite different to what really resulted. This method enables him to make some very scathing remarks on what was done and left undone without making his book a direct criticism.

The problems were by no means so clear in 1914 as they are now. The German air service seems to have thoroughly failed: there was no air reconnaissances during the day before the battle on the 27th of August, "in consequence of rainy, stormy weather," and, in the evening, of the front of the Second Army it was reported: "On the Oise sector there are only weak [French] rear guards"; the presence of Lanrezac's entire Army was overlooked! On the evening of the 27th, Bülow found himself in a dilemma. He meant to give his Army a rest day on the 28th, but discovered that the Armies on either side of him were diverging from him, the Third (Hausen) going south-east, and the First (Kluck), south-west. Wishing to "avoid the heavy losses which he had incurred at the Sambre," where he had gaily pushed his divisions over the river believing that

* See *Army Quarterly*, October, 1925, October, 1927, January, 1929.

there was nothing in front of them, now, when he was told that no resistance might be expected, he held back. His orders for the 28th only sent forward his right wing (VII and X Reserve Corps), which, owing to the southern bend of the Oise, had no river in front of it, hoping it would turn any French forces which might be on the east and west course of the Oise in front of his left (X and Guard Corps). Part of the Guard actually entrenched. "Thus half a day which might have been used for clearing up the situation on the Oise was lost. In the loss of time lay the kernel of the later errors so heavy in consequences."

Then, towards midday on the 28th, Bülow changed his mind, and at 12.25 p.m., although nothing had been done to clear up the situation, he issued orders, "breathing the spirit of the pursuit," which sent the X and Guard Corps to seize the heights south of the Oise, and concluded with the words, "passage of the Oise is to be reported at once." Later, without having heard more than that the X Corps had taken a bridge at Guise and was fighting for another, he reported to the Supreme Command that the X and Guard Corps would reach places across the Oise that evening, and based his further orders on this supposed success. No attempt was made to get information as to where the two corps were, "the actual position of the left wing remained unknown to the Army headquarters, only six miles behind it, until the morning of the 29th of August." The corps was equally to blame for not sending back news. The fact was that German generals never reported failures, hoping always that the situation would improve. Colonel Hierl says :

"The reporting system forms a dark point in the shining picture of the old German Army," and suggests that "conscious withholding or diluting the truth in reports should be regarded as a war crime. . . . Reconnaissances were neglected, air information failed, and the Second Army staff compensated for lack of them by its own imagination. The failure of the corps staffs to do anything confirmed the Army staff in its errors."

On the evening in question, the whole French Fifth Army was in front of and overlapping Bülow's left wing, and part of it preparing to strike his right wing in flank ! "Thus the French attack of the 29th of August took the German Second Army wholly by surprise and found it divided by the course of the Oise into two widely separated groups."

On the 29th the right wing was taken in flank ; the left wing, in its efforts to advance, met with strong resistance.

Colonel Hierl points out the great opportunity which now

occurred to annihilate the French Fifth Army, which did not persist in its attack westwards across the Oise towards St. Quentin. The German left wing, instead of trying to drive the French from the field, should have held them fast whilst the right made a wide enveloping movement southward. Actually Bülow only ordered a concentric attack, which merely led to an excessive concentration of troops on the battlefield, and had little chance of leading to a decisive victory. He made no attempt to profit by such tactical success as he gained, and "practically renounced all effort at effective pursuit." His order, issued at 4.45 p.m., ran :

"The pursuit is, as far as strength permits, to be continued, particularly by the artillery ; infantry detachments without baggage are also to be pushed on as far as possible, in order to give the enemy the finishing blow.

"The Army will halt to-morrow and rest."

He had not gained even "an ordinary victory," which is all the Germans claim.

Colonel Hierl is not quite so severe on the French leaders as on his own countrymen. The task given to General Lanrezac by Joffre was to make a counter-attack on the pursuing enemy south of the Oise. In the circumstances, little could be obtained except moral effect, and this should have been borne in mind throughout. The problem was difficult, as neither on the right flank, owing to a gap, nor on the left flank, owing to the continued retirement of the British, could Lanrezac expect support, and his retreat would be delayed by at least one day. A great effect could only be secured by surprise. The first thought would be to attack the Germans in the act of crossing the Oise. But, as they could hardly be expected to do this without due precautions, there would be more prospect of success if they were allowed to cross and were caught between the Oise and the Serre. As they would not reach this area for a couple of days, this plan would give time to make preparations. The Fifth Army was retiring southward with its thirteen and a half divisions in line, and Joffre's emissary, Colonel Alexandre, had indicated a wheel to the west. This suggestion was absurd and, of course, quite impossible of execution. The proper course was first to get the Fifth Army formed in depth, so as to be ready to manœuvre. This formation would at the same time provide flank protection. Lanrezac, therefore, instead of moving west at once in column across the enemy's front, as he did, should at 9 a.m. on the 27th have issued a halt order arranging his Army in depth, with a view to making his attack on the 29th. Meantime, every effort should have been made to

collect intelligence of the enemy so as to take advantage of opportunity, and avoid the sudden unexpected collisions which actually occurred.

Lanrezac received orders to make a movement towards St. Quentin, with a view of attracting towards his Army the forces pursuing the British. During his attack he must protect his new right flank (north); for this the Group of Reserve divisions was most suitable, and being already on the west flank of the Army was ready in the right place to cover the westward movement of the others and form the defensive front. The I and X Corps (farther east) were too far off to make the movement on St. Quentin; for this the III and XVIII alone could be used, starting during the night of the 27th–28th. The X Corps should go to the defensive flank; the I Corps remain as flank protection on the east.

On the evening of the 28th, Lanrezac should have gathered from intelligence that his Army must reckon on being attacked on the Oise in the Etreauport—Guise sector by the enemy's forces amounting to more than one corps, but at most three corps. It was obvious that the III Corps would not be able to march across their front. The best course, therefore, was to attack them at once, enveloping them from the east. For this purpose the I Corps and the 4th Cavalry Division must be turned northward. If this operation succeeded it would have its effect not only on the German Guard and X Corps, but on the western half of the Second Army, and probably cause the German First Army to be directed against Lanrezac's force. The strategic results of an attack on St. Quentin would thus be achieved. It would be better, consequently, not to push the XVIII Corps, etc., over the Oise towards St. Quentin, but let it defend the north and south course of the river against the German First Army; unless, for moral effect on the British, more is required, in which case the objective should be limited to the high ground between Oise and Somme.

Instead, therefore, of defiling across the front of the Germans Lanrezac should have ordered :

- (1) An attack to obtain a decision between Hirson and Guise on the enemy's left wing, if possible envelopment by the 4th Cavalry Division, I, X and III Corps.
- (2) Thrust in the direction of St. Quentin by the XVIII Corps and 4th Group of Reserve divisions, with the limited objective of gaining the possession of the heights between Oise and Somme.
- (3) Two divisions, 37th and 51st Reserve Divisions, to be held in reserve.

In some general remarks Colonel Hierl suggests that Joffre's order to Lanrezac to attack towards St. Quentin was founded on the erroneous supposition that the German Second Army was for the most part detained before Maubeuge, and that therefore Lanrezac would have no strong enemy forces on his front and could take the isolated First Army in flank. He relied for success on luck and the mistakes of the enemy.

The manner in which the order was given was far from correct, "it sinned against the first principles of the drafting of good orders." Joffre himself was not clear what he wanted, and therefore could not express an "intention"; a battalion can be ordered simply to attack in a given direction, but for larger bodies, particularly in complicated situations, such an order is insufficient. Lanrezac, he judges, appreciated the situation better than the Commander-in-Chief—as he did at the opening of the campaign. "The main reason for the failure of the attack in the direction of St. Quentin was the neglect of the danger from the north. The responsibility for this is first and foremost General Joffre's." By his presence at Lanrezac's headquarters, he did not make the latter's task any easier. He took not the slightest step to exploit the great gap between the German Second and Third Armies, nor did he suggest anything to Lanrezac. It is greatly to Lanrezac's credit that he extracted the Fifth Army from the dangerous position in which French G.Q.G. had placed it for the second time, but "the easy escape of the French Fifth Army must be attributed in any case to particularly lucky circumstances; the main reason can be seen in the mistakes and errors of the German leaders." It was especially fortunate that the French flank was not discovered. The German official account claims that the weather on the 28th of August was misty, which prevented air reconnaissance; but the French airmen obtained most valuable observations in the afternoon. "Why the German airmen made no flights and reported nothing is not known."

The statements made in the German official monographs on the battle of the Marne, recently reviewed in these pages, as regards the inaction of the French Fifth Army, next to the British in that battle, are strikingly confirmed by Colonel E. Valarché's *Le Combat du Petit Morin, Du 6 et 9 septembre, 1914, au 10^e Corps d'Armée* (Paris, Berger-Levrault, 10 francs). The French X Corps (General Defforge), the right of the Fifth Army (General Franchet d'Esperey), was opposite the German X Reserve Corps of Bülow's Second Army, which retired behind the Petit Morin at the beginning of the battle,

and stayed there until the general retirement. The book consists partly of narrative and partly of statements of survivors, and has an appendix containing orders and messages, and an excellent map, unfortunately without a scale drawn on it.

The author begins with a summary of the situation on the 5th of September, when Joffre's order for the offensive was received, and an account of the exhausted physical but excellent moral condition of the troops : "*On en a assez de recules.*"

Nothing had been seen of the enemy for some days, but, on the afternoon of the 5th, the outposts noticed a few cavalry patrols which, however, retired at evening. Not a single infantryman showed himself. The advance began next day with the 20th Division on the right, the 19th on the left, and the 51st Reserve Division in reserve behind the right. It led to "violent combats. . . . An indecisive day. During the afternoon nearly all the ground so easily gained in the morning was lost. . . . The staff of the X Corps was somewhat discouraged." In fact, the right had advanced four kilometres and the left one kilometre. The men were, however, cheered by the arrival of food and supplies. "Absolute calm reigned on the battlefield at the beginning of the night," but, owing to the sounding of German trumpet calls during the night—pretty careless, as the Germans were actually beginning a retirement—there was a slight panic.

At dawn, the outposts of the 19th Division saw before them 600 yards away a badly sited shallow, almost straight trench, in which a line of Germans was clearly visible. Six machine guns were turned on to it from the buildings of a farm. In a few minutes two white flags went up, and then, as two groups of field guns shelled it with high explosive, the whole trench was soon marked by similar flags. There was not a shot from the enemy. "We must stop this massacre," said a French officer, but it took some time to get a message to the artillery. Patrols then advanced. There was a "a lamentable spectacle . . . a whole battalion, one-third dead, one-third dying, the rest grievously wounded." Seventy unwounded men and two officers surrendered. This account agrees practically with the German, which says that six officers and eighty-seven men survived. The author states that the battalion was the only German infantry that the X Corps saw in the battle of the Marne. It was a battalion of the 74th Reserve Regiment, forgotten in the hurry of the German night retirement ; * but the German claim that it "blocked the advance of the French 19th

* See *Army Quarterly*, Vol. XVII, p. 241.

Division for half a day" can hardly stand. What did stop the X Corps when it tried to approach the Petit Morin was the fire of the German field artillery—in action behind that river. Bülow had, as we know, ordered the X Reserve Corps back over the Petit Morin on the night of the 6th, and it had begun retiring at 2 a.m., and had carried out the operation undisturbed. Its artillery now fired according to the French account at random, concentrating on points where there was no one. The French infantry began to laugh, but "the obstinate repetition of these bursts seemed to presage an infantry attack," and the infantry halted. The French artillery began to fire at nothing in particular, so that between 3 and 4 p.m. both artilleries "*tapaient également dans le vide.*" Thus during the 7th the 20th Division made no progress, except that its left came up in line with its extreme right; the 19th Division reoccupied the ground it had lost the previous day, not coming quite in line with the 20th.

On the 8th, artillery fire again made the French cautious; they could see neither guns nor infantry, and it was not until 5 p.m. when rain came down and prevented German observation that the advanced guard of the 20th Division got across the Petit Morin on temporary bridges left by the Germans. The net advance for the day (the author's figures) was five kilometres for the 20th Division and four kilometres for the 19th.

For the 9th, General Franchet d'Esperey, at 11 p.m. on the 8th, ordered a pursuit, stating that the enemy was in full retreat; but the X Corps was hampered by instructions to assist Foch's Ninth Army, which was in trouble, although not actually called on to do so. Again the "divisions did not find German infantry in front of them, but only the batteries, always vigilant, and well guarded by machine guns." At 10.15 a.m. the 20th Division received orders to entrench! It did no more than just cross the Petit Morin about 1 p.m. when the enemy went back, his retreat being timed to begin at 1 p.m. (Entente time), and its total progress was two kilometres. The 19th Division found the bridges in front of it destroyed, but eventually crossed, its advance amounting to fourteen kilometres. The Germans drew off; they claim in their account, "the 19th Reserve Division [opposite the 19th Division] was fired on by artillery, but its rear guard kept the enemy off until 5.50 p.m. and then retired." The 2nd Guard Reserve Division, opposite the French 20th Division, withdrew under similar conditions, "without any loss worth mentioning." There was no pursuit.

The total advance of the 20th Division from the morning of the

5th of September to the night of the 9th was, therefore, eleven kilometres (say six and a half miles), and of the 19th, nineteen kilometres (say eleven and a half miles), during the actual battle four or five kilometres (say three miles), and that was only due to the German voluntary and undisturbed retirement.

Why no attempt was made to close with the enemy at night does not transpire. The Petit Morin is not fordable, but has only the width, about 18 feet, of a small canal.

A curious coincidence is to be found in Lieut.-General Wellmann's *Mit der 18 Reserve Division in Frankreich 24 Februar 1915 bis 4 Oktober 1916* ("With the 18th Reserve Division in France 24th of February, 1915—4th of October, 1916," Hamburg, Bemgruber und Henning, 3 marks), which is a history of the Division in diary form whilst it was under the author's command. Mr. Bean, in the Official History of Australia in the War, 1914-1918, Vol. III, p. 468, relates that when Major-General H. B. Walker, commanding the 1st Australian Division, reported to General Sir H. Gough on arrival in the Somme area 18th of July, 1916, the latter's greeting was: "I want you to go into the line and attack Pozières to-morrow night." The 1st Australian Division took Pozières. We turn to the other side. On the 24th of July General Wellmann, whose 18th Reserve Division had been on the Artois front, reached the Somme area for the first time. He had just taken over part of a château at Haplincourt as divisional headquarters when General Fritz von Below, the Army commander, and General von Boehm, the Corps commander, appeared, and, after a short discussion, the latter announced, "General Wellman is entrusted with the recapture of Pozières . . . which will take place to-morrow afternoon." As the General says, this was a "nice sort of surprise for me and my staff." Unfortunately for him everything went wrong, and the coincidence ends. He never retook Pozières. Two regiments were detailed for the operation, but, according to his account, one never started at all, and the other went in piecemeal and lost heavily.

The Division remained on the Pozières front until the 10th of August. The infantry losses reported were :

			Officers.			Other ranks.		
			Killed.	Wounded.	Missing	Killed.	Wounded.	Missing.
Res. Inf. Reg.	31	..	8	26	—	188	919	52
do.	84	..	11	20	6	290	1343	322
do.	86	..	9	31	1	235	1149	137
Inf. Regt. No.	16	..	6	10	5	175	716	311

all probably well over 50 per cent. of the strengths. But he adds that the regimental history of the 31st Regiment gives other ranks 248 killed (instead of 188); 917 wounded (instead of 919) and 51 missing (instead of 52); and the history of the 16th Regiment, 10 officers and 400 men killed, and 11 officers and 1,000 men wounded. It is evident that the divisional reports of losses are not entirely dependable.

The Division was put in a second time on the Somme at Le Transloy on the 27th of September, until the middle of October, but its losses are not given.

Le truppe Italiane in Francia (Milan, Mondadori, 25 lire) by Colonel M. Caracciolo is a military account, with excellent maps and appendices, of the operations in France of the Italian II Corps, under General Albricci. It was sent there on the 18th of April, 1918, as Italy's contribution towards forming the General Strategic Reserve which the Versailles Council in February had decided to organize. It consisted of the 3rd Division (Naples and Salerno brigades) and the 8th Division (Alpine and Brescia Brigades) and corps troops. The two Divisions were composed of some of the best Italian troops, and had fought well on the Isonzo, the Tagliamento and the Piave. The 3rd Division went into the line in the Argonne in May, and was relieved by the 8th at the end of the month. In June, General Albricci begged for a more active rôle for the Italians, and his Corps was allotted to General Gouraud's Fourth Army, went in the line west of Rheims, and took part in the second battle of the Marne and the advance over the Chemin des Dames to the Meuse. Its losses were 14,874, a third of its combatants, of which number over 5,000 were dead.

AUSTRIAN FRONT

Lemberg 1914 (Vienna, Holzhausens, 12s.), by Colonel Max Freiherr von Pitreich.

The author in 1914 was first a major of the General Staff on the Austrian XI Corps (Third Army), the duty of which, in cooperation with the I and X Corps, was the *couverture* of the Galician frontier, and later Chief of the Staff of the 30th Division in the XI Corps. His book includes a description of the operations in Galicia: *couverture*, cavalry reconnaissance, the first battle of Lemberg (26th-31st of August), the retreat of the Austrian Second and Third

Armies, the second battle of Lemberg (6th–11th of September) and the general retreat of the Austrian Armies.

From first to last the Russians exhibited more knowledge of war than the Austrians. Small parties of cavalry worried the troops covering the mobilization, and scared the inhabitants of the frontier districts. There were demands for reinforcements and help, cavalry divisions and infantry detachments were sent up and were exhausted by useless thrusts at their tormentors, and the XI Corps could not assemble in the areas laid down. The cavalry divisions sent forward to reconnoitre and discover the enemy were checked by the fire of small parties of dismounted cavalry, and attacked in flank and in rear. Like Sordet's cavalry in Belgium, they were worn out by incessant movement before the real operations began.

Colonel von Pitreich discusses at length the experience of previous wars and the doctrine and training of the Austrian Army, founded on the German, which led to its disasters. Its principal errors were too great extension of front, combined with envelopment on all occasions, too great haste in advance and attack, closing on the enemy regardless of losses, so as to use the bayonet, lack of concentration of artillery and of artillery liaison with the infantry. There are sketch-maps.

AFRICA

Les Campagnes Coloniales Belges 1914–1918. Tome II : La Campagne de Tabora 1916, issued by the Historical Section of the Belgian General Staff (Brussels, Institute Cartographique Militaire), is a well-printed volume of over 800 pages, with 54 beautifully reproduced maps in colour, and 55 photographs. It deals with the first Belgian offensive campaign in German East Africa, in which some 12,000 native troops with 700 Europeans took part. They were organized, under General Baron Tombeur, into a headquarters and two composite brigades, and based on the Belgian Congo, eventually through ports on Lakes Kivu and Tanganyika. Each brigade included 6 battalions of three companies, 3 machine guns and a section of mountain artillery, 2 batteries of 7-cm. mountain howitzers, a group of mortars and a company of engineers.

After a description of the country and the organization of the force, the campaign is narrated in six phases.

The first, March–April, 1916, was the preliminary operations, and saw the concentration of General Tombeur's force in Uganda, on the west side of Lake Kivu and the river connecting it with Lake

Tanganyika, the Belgians having command of the former lake, but not of the latter.

The second, in May, was the concentric march on Kigali—Nyanza. This secured a line between Lake Kivu and Lake Victoria Nyanza and the province of Ruanda. The carefully prepared German positions were turned.

In the third, in June, the Belgians pushed still farther south, gaining a line from the top of Lake Tanganyika to the south end of Lake Victoria.

In the fourth, in July, operating east and west, the port of Mwanza on Lake Victoria, and that of Kigoma, a third of the way down Lake Tanganyika, were secured. The latter operation was assisted by a Belgian flotilla and hydroplanes. One German vessel was surprised, and the other, and last, was sunk in Kigoma a few days before the Belgians entered.

In the fifth phase, in August, four columns cooperating with General Crewe's British column from the east, converged on Tabora ; so that, in the sixth and last phase, the battle of Tabora, the Belgian troops were disposed in a large quarter-circle round the place, the left covered by General Crewe. The simultaneous pressure of these forces, after fighting from the 10th to the 14th of September, led to the abandonment of Tabora by the Germans and its surrender on the 19th of September. A territory five times the extent of Belgium had been cleared of the enemy.

The Belgian troops remained in occupation of the conquered territory ; but it was agreed between the British and Belgian Governments that the garrison should be reduced to 2,000, and the territory taken over later by the British. The evacuation of the troops to the Congo was in execution when events made it desirable to make a further combined campaign against the enemy, which is to be dealt with in a further volume.

REVIEWS AND NOTICES OF RECENT BOOKS AND ARTICLES ON MILITARY SUBJECTS

Four Months Camping in the Himalayas. By Dr. W. G. N. VAN DER SLEEN. London : Philip Allan & Co. Price 21s. net.

THE chief object of Dr. Van der Sleen's tours was to study the geological formation of the Sutlej Valley among the Himalayas. The scientific results are to be published at some future date. Meanwhile he recounts the adventures and vicissitudes of four months' camping. Although Dr. Van der Sleen, who was accompanied by his wife and an assistant, was never more than a fortnight's marching distance from Simla, the district traversed is unknown to the ordinary wayfarer. In their first tour during June and July the party took the old upper Thibet road from Simla to the pine forests of Narkanda, whence they dropped down to the Sutlej Valley near Rajgarh and pursued their investigations up the Sutlej through the district of Bashahr as far as Chini and the adjoining mountain spurs. In the autumn they struck the Sutlej lower down and worked up to Rampur investigating various tributary rivers, and then struck up to Narkanda, whence they passed down south-eastwards to the River Giri in the Ganges basin and through parts of Sirmoor and Patiala.

The book gives a very readable account of the things which an ordinary holiday-maker would delight in seeing—the mountain grandeur, the verdure of the valleys, the simple Hindu folk with their age-old superstitions, Thibetan families migrating for the winter into the Sutlej Valley. They saw a great sacrificial feast and a "dance of the gods" under the shadow of the holy mountain of Kailas, and at Rampur were present at the autumn fair. In the little State of Kunmarsain they met a Rajah who was sending, at his own expense, ten students a year to the Lahore agricultural college, and girls to technical schools and hospitals. On their return they were to teach his people something more practical than English history and geography.

The book is well translated and illustrated, but the absence of a sketch-map is a serious disadvantage.

Napier's Rifles. By H. G. RAWLINSON. London : Humphrey Milford. Price 15s. net.

The battalion, now known as Napier's Rifles, has had a most distinguished career. No unit of the Indian Army is more worthy of a published history both as a memorial in the regiment and as a reminder to the public of the part which the Indian Army has played in forming the Indian Empire.

The major operations in which it has taken part—always with outstanding distinction—include the Sind War, the Indian Mutiny, the Abyssinian Expedition and the Third Burmese War. During the Great War it served continuously in the Seventh [Meerut] Division, first in France, then in Mesopotamia, and finally in Palestine.

Mr. Rawlinson has rightly given prominence to those episodes of war in which the battalion figured, and when possible he has left it to the actual participants to tell their story. One regrets, nevertheless, a lack of reference to such matters as the types and characteristics of the men enlisted at various periods. The present constitution, of two companies Rajputana Jats one company Rajputana Rajputs and one company Punjabi Musalmans, appears to date from 1885. There is no mention of the constitution and methods of recruitment prior to that year.

Mr. Rawlinson is at variance with the Indian Army List as regards the year in which the battalion was raised. Whereas the Army List [July, 1929] says 1820 Mr. Rawlinson says 1817 immediately after the battle of Kirkee, and he gives "Kirkee" as a battle honour. The battalion bore the number twenty-five among the Bombay units from 1826 to 1903 when it became the 125th Napier's Rifles, receiving its present designation "5th battalion [Napier's] 6th Rajputana Rifles" in 1922. In the course of various changes of name it once bore the curiously cumbersome title of "25th Regiment [3rd battalion Rifle Regiment] of Bombay Infantry"! It had become a Light Infantry battalion in 1858 for its distinguished services in the Mutiny.

Big Game Hunting and Collecting in East Africa, 1903-26. By KALAMAN KITTENBERGER. London : Edward Arnold & Co. Price 25s. net.

A most absorbing book. A prospective big game hunter would be foolish not to learn from it and every old hunter will find much that he knows put clearly and vividly. The author, a Hungarian, is well described by Major G. Burrard, who writes an appreciative

foreword, as a very gallant and generous-hearted sportsman. His experiences cover over twelve years' actual hunting—and always on foot. His object has been not merely to get a bag but to obtain specimens for a natural history museum and latterly to capture young animals for a Zoo. He had every qualification for success—an ardent naturalist, a scientific grounding, great powers of observation, unlimited patience, a fearless spirit—added to all of which he shows by his writing that he can describe what he did with a wealth of detail which is never tedious and which takes the reader with him in the excitement of the hunt.

Mr. Kittenberger's favourite hunting-ground was over the little-frequented area between Lake Victoria and the Great Rift Valley, but he went also eastwards beyond Kilimanjaro, and as far afield westwards as the Belgian Congo frontier and the West Nile Province.

Chapters are given successively to his experiences with each sort of animal, to capturing wild animals, and to equipment and management of trophies. He gives his own reasons for putting elephant in the first rank of dangerous sport, then lion, then buffalo, and last the rhino and leopard.

There are two hundred admirable photographs and an adequate sketch-map [which, by the way, places the Wanderobo Plain incorrectly]. The translation is excellently done.

The Weary Road. By C. O. G. DOUIE. London: John Murray.
Price 6s. net.

Undoubtedly the "Weary Road" will take a place among the best of the narratives of personal adventures in the late war. It is a book written in natural and easy style, without an attempt to dramatise experiences. And while giving the impressions of a keen, though young, observer—Mr. Douie was only nineteen when he went to the front—and vivid descriptions of what took place, it also well represents the outlook of the Englishman, his mingled sadness and humour, his stubborn tenacity, his great patience, his dislike of soldiering except as a means to an end. There are, however, two small criticisms to be made. One is that Mr. Douie quotes too much from the poetry of others, which is unnecessary since he himself writes so well; the other is that an impression is left that the Germans did most of the hitting and the British most of the receiving.

Mr. Douie thinks that "at no time of the war was the morale of the Army more near to breaking than in the carnage of the Third

Battle of Ypres ”; and that “ the war of attrition had few advocates among those who were enabled to judge of its merits, and the extent of its success, in the abomination of desolation which stretched from Houloust Forest to Passchendaele.” But he also writes, and it is nowadays a useful reminder of the reason why wars take place, “ I have sometimes wondered whether anything short of a breakdown in German morale would ever have taken us to the Rhine, and whether that breakdown could have been accomplished by any other means than the hard pounding which the German army always expected, and obtained, in their battles against the British, however small the territory gained.”

The Regular Army will be grateful to Mr. Douie for his generous appreciation of the regular soldier, for, as he says, “ a body of men who obey tradition must expect to be the subject of misrepresentation . . . to which there is no reply. The counsel for the prosecution has his say, there is no counsel for the defence.”

Like most men of his generation, the author experienced a strong reaction when facing the rather unsympathetic conditions of peace. “ Throughout the war ” he had “ lived solely for the day . . . too exhausted to conceive anything more distant than the next relief.” But peace made demands to which he was not used ; “ Peace long deferred was now to teach ‘ us the lesson that they (things) are never quite so good ’ as they seem.”

Sea Escapes and Adventures. By “ TAFFRAIL.” *The Loss of the Titanic.* By LAWRENCE BEESLY. *Smuggling Days and Smuggling Ways.* By H. N. SHORE. *The Buccaneer.* By A. H. COOPER-PRICHARD. The “ Nautilus ” Library. London : Philip Allan & Co., Ltd. 3s. 6d. each.

These are the ninth to twelfth volumes of this excellent series. “ Taffrail ” tells the stories of gallant deeds from the year 1765 to the first crossing of the Atlantic by aeroplane in 1919 ; every story is worth telling and is well told. Lawrence Beesly was a passenger in the *Titanic*, and he tells the tale of that terrible disaster calmly and dispassionately ; if only for the lessons that it draws the book is well worth reading. Mr. Shore’s is perhaps the standard work on the English Smugglers and is full of interest and of thrilling adventures. The book was first published in 1892, and in view of what is going on now in the United States of America, Mr. Shore might not have written : “ these pettifogging attempts of modern times put . . . when compared with the gigantic scale on which

smuggling operations were conducted in the 'good old times,' . . . and the modern smuggler can only be regarded as a contemptible cheat." *The Buccaneers* was first published in 1917 and tells the deeds of Henry Morgan and his men. The book is well worth reading. Though they behaved as such, the Buccaneers were not, as the author points out, pirates, and Morgan was knighted and acted as governor of Jamaica on more than one occasion. We hope Messrs. Allan will give us more of the "Nautilus" Library.

The Life of Napoleon. By DMITRI MERZHKOVSKY. Translated from the Russian by CATHERINE ZVEGINTZOV. London: J. M. Dent & Sons, Ltd. Price 7s. 6d. net.

The meteoric career of Napoleon seems to exercise an endless fascination, and now that further examination of the facts is no longer advantageous, writers are turning to the analysis of the character of this wonderful man.

By some Napoleon is looked on as almost a machine, the person who said, "If I appeared always to be ready . . . it is because I thought over matters for a long time before undertaking the smallest thing; I foresaw everything." This, however, is not the view taken by M. Merzhkovsky, who has pictured Napoleon as a man ruined by an inexorable destiny, but possessing a "wonderful innate knowledge—remembrance prior to all experience," and has in vivid language dramatised the salient features of his life. The reader, therefore, will not find in this book accurate technical studies of campaigns, although there is an interesting chapter on the duel with England, and a spirited but rather one-sided account of the Waterloo campaign. But he will find summaries such as that in 1809 Napoleon was like a man fighting with one foot in a quagmire, Spain; and that, in 1812 he was obliged to go on to Moscow because his army was "created for an offensive, not for defence." He will also gain a very useful insight into the psychological basis of action, an insight that must be acquired if Napoleon's methods are to be understood.

Who, for example, but a profound psychologist would have acted as the young Napoleon did at Toulon in 1793? "A battery near Little Gibraltar was so heavily shelled that the men refused to stay there. Bonaparte ordered a little notice-board to be put up with the words 'Battery of the Fearless,' and the men vied with each other for the special honour of serving there." Of Rivoli one reads that had but a muscle of Napoleon's face quivered "the shock

would have been translated to the whole army and set it in flight ; but his face was calm as that of a man solving a problem of mathematics." In 1805 he remarked : " Had we landed in England, occupied London, which was inevitable, the Strasburg women alone would have sufficed to defend our frontiers " against the Austrians ; at Marengo he made the telling appeal to Desaix's men, " Soldiers, I need your lives, and you must sacrifice them to me."

Napoleon's moments of weakness, that in the Legislative Assembly on the 18th Brumaire, that at Borodino, and that after Waterloo, are well described, and the most is made of the pathetic story of St. Helena. There are, however, in the book, in spite of its excellent translation as a whole, one or two turns of expression that are not generally used, and there is the almost inevitable mistake of writing of Lord Pitt. On the other hand there are profuse references to the authorities from whom the facts have been taken.

The Great Earl of Peterborough. By Brigadier-General COLIN BALLARD, C.B., C.M.G. London : Skeffington & Son, Ltd. Price 21s. net.

The Chief of the Imperial General Staff recently regretted that the study of the actions of continental strategists should have displaced that of our own leaders. General Ballard's very interesting, well-written, well-illustrated, and well-mapped book—although in one map Spain is shown as owning Genoa—has, therefore, come out in proper time both to show the difficulties that may face a British commander in war, and also to show something of our national strategy, which is too often overlooked in the contemplation of its details.

Many qualifications are needed if success is to be consistently gained in the field, some of which Peterborough possessed while others were lacking. He had " no theoretical knowledge, no practical training," and worse still he was without tact, that supreme quality when allied forces have to be commanded ; and, as the author says, he apparently was without the power of making the most of the means at his disposal. On the other hand he had brains, he possessed charm, because he was genuinely interested in others and their affairs, energy, the zeal for obtaining information and the power of gauging its value, and the dramatic sense that has so often led to success ; and it was this sense that enabled him to devise many excellent stratagems, and to gain his great victory, the surprise of the Montjuic fort in 1705, which led to the capture of

Barcelona. On the broader questions of war Peterborough's judgment seems also to have been at times admirable, although it is to be remembered that it is much easier merely to be a wire-puller as he was after 1707, and to advise than to act or carry the responsibility of action.

As has been pointed out, a valuable part of this book is the historical background, the showing, as General Ballard says, "something of those big events as Peterborough himself may have seen them." No one, indeed, who reads this background can fail to remark how similar the strategical situation in the War of the Spanish Succession was to that in the late war, which, however, is not in reality strange since at base the political factors were not markedly different. There were, from 1704-1705 onwards, two fronts of war, an eastern extending from the Netherlands (Belgium) to Switzerland and then from Switzerland to the Mediterranean, a western in the Spanish peninsula. There were advocates of vigorous action in the Netherlands and in Savoy, the two flanks of the eastern front, there were advocates of defensive in the east and attack in the west. A sentence in one of Peterborough's reviews of the situation also has a particularly modern ring, for he wrote that "the object of the war was to defeat the Bourbons, and the attack should be directed against a vital point"; which, as a statesman once remarked in similar circumstances during our Great War to a distinguished general, is "very interesting, but where is the decisive point?"

General Ballard quotes Wellington as saying that "the art of war consists in knowing what the fellow on the other side of the hill is doing." The story as told by Croker is, however, as follows:

"When travelling on the great north road we (the Duke and Croker in 1823) amused ourselves by guessing what sort of country we should find on the other side of the hills we drove up; and when I expressed surprise at some extraordinarily good guesses he had made, he said: 'Why, I have spent all my life in trying to guess what was on the other side of the hill. . . .' All the business of war, and indeed all the business of life, is to endeavour to find out what you don't know from what you do."

Strange Tales of the Seven Seas. By J. G. LOCKHART. London: Philip Allan & Co., Ltd. Price 8s. 6d.

This book can be recommended to those who wish for a few hours' enjoyment of reading in comfort about the perils of the sea, though the perils here described are mainly of one particular kind—that of mutiny with violence and murder afloat. There seems, as

the author says, to be some obscure factor—apart altogether from bullying officers, bad food and drink, and other comprehensible phenomena—which acts on men at sea in a manner resembling spontaneous combustion and gives rise to quite causeless and senseless outbreaks. Such a mutiny as that of the two coolies on board the *Frank N. Thayer*, and of three American sailors of the *Leicester Castle*, can be accounted for in no reasonable manner. Two things stand out from these sixteen varied tales—the power of one or two brave or desperate men to impose their will on the whole of a crew for evil, or occasionally, as in the case of the plucky Belgian steward of the *Lennie*, for good, and the inevitability with which, largely owing to blunders on the part of the criminals, retribution usually follows the offence. But it was doubtless no part of Mr. Lockhart's purpose to arouse these or any other philosophic reflections ; his tales are effective to entertain, thrill and horrify the land-lubber reader, and for so admirably achieving this laudable intention he deserves our gratitude.

Mad Anthony Wayne. By THOMAS BOYD. London : Charles Scribners' Sons. Price 12s. 6d.

To the good American—quite naturally—everything and everything connected with his country's fight for independence is of absorbing interest ; but the hero of this book, General Anthony Wayne, stands in need of no apology for a biography. Mr. Boyd has already made his literary name by two excellent studies of the United States Marines in the Great War, and a novel of the American Civil War, and he has here essayed with equal success a biography in the vivid dramatic style now so much in vogue, the aim of which is to bring its hero to life rather than to achieve a dispassionate appraisal of his work and character. The book thus opens abruptly on the eve of the Declaration of Independence when Wayne is about to leave for Philadelphia to take command of one of the newly-raised Pennsylvania regiments. We then follow him through the disastrous invasion of Canada, the unfortunate battles of Brandywine and German town, the miserable winter at Valley Forge, and the mismanaged affair at Monmouth, whence he alone emerged with enhanced reputation. Then victory crowns the American standards and we read of his brilliant surprise of the fort at Stony Point, the decisive campaign of Yorktown—where he suffered the fate that has overtaken so many American commanders, and was wounded by his own men—and the final clearing up of Georgia. Ten years of

peace follow with their accompaniment of disappointment and financial worry before Wayne again takes the field in 1793, as commander of an expedition sent to pacify the territory between the Ohio and Lake Erie, where the Indians, covertly supported by the British, have put up a successful resistance to similar previous attempts—a task which he accomplishes with conspicuous ability and success. It is his last campaign, for within a year of its conclusion he died from the after effects of his old wound at Yorktown. Always brave, high-spirited and sanguine in youth, he had with age and experience added to these qualities those of caution, farsightedness, sagacity and patience, which made him a first-class commander and a fine lovable character whom Mr. Boyd has done well to put before us so picturesquely and sympathetically.

Essex Units in the War, 1914-1919. Volume 4, The Essex Militia.
By J. W. BURROWS. Burrows, Southend-on-Sea. Price 5s.

This admirably cheap and well-produced volume of 240 pages, with its wealth of illustrations from portraits, old prints and maps, gives a detailed account of the services of the Essex local troops from their first appearance in history at the Battle of Maldon in 991 against an invading force of Danes, to the formation of the Special Reserve Battalion in 1908, and of this unit prior to and during the Great War. The Essex Militia in one form or another appear in most pages of British military history. Essex men took part in most of our various expeditions in mediaeval times, but the militia as such made its *début* at the time of the Armada, when 4,000 were quartered in camp at Tilbury to help repel an expected Spanish invasion. The Parliamentary armies in the Civil War numbered three Essex infantry battalions and several troops of horse on their rolls, while many men from the county also served on the King's side. When Pitt reorganized the Militia in 1757, the number of battalions was reduced to two, though a third was raised during the Napoleonic wars as a draft-finding unit for the others, which between 1793 and 1815 did garrison duty at various stations in the British Isles. The Militia battalion saw active service overseas for the first time at the end of the South African War. During the Great War the rôle of the 3rd (Special Reserve) Battalion was garrison and coast defence duty at Harwich and Felixstowe, and draft finding for the various units; 1,000 officers and 24,000 men passed through the unit during the four years of the War.

Men of War. By Commander TAPPRELL DORLING, D.S.O., R.N. ("TAFFRAIL"). London: Philip Allan & Co., Ltd. Price 15s.

In his selection of five famous seamen, Commander Dorling seems to have had an eye chiefly to the picturesque in character and achievement. St. Vincent, his first choice, has, however, undeniable claims to the grateful recollection of posterity. He won the battle from which he took his title, incidentally giving Nelson his first chance of glory; he preserved discipline in the fleet off Cadiz at a time when mutinies at the Nore and Spithead threatened to lay the coasts of Britain defenceless before a French invasion; and as First Lord of the Admiralty he organized and administered the fleet which won Trafalgar and was the foremost instrument in the defeat of Napoleon. Beside these achievements his martinet severity, and harshly tyrannical manner to all and sundry, were but small blemishes in a great seaman and a great man. Cochrane, the subject of the second study, was an extraordinary mixture of ability and lack of scruple, of courage and avarice, of transcendent powers of leadership, and of an itch for politics and for quarrelling violently with equals and superiors alike, which made him the best frigate captain in the service, and yet led to his being cashiered with ignominy for a shady Stock Exchange job, so that he had to devote the best ten years of his life to a thankless endeavour to make sailors of Chilians, Brazilians and Greeks. Marryat the novelist, the greatest writer of sea stories the Navy has produced, has somewhat overshadowed the sailor, but his highly creditable sea career lasted twenty-four years, in the course of which he saw considerably more fighting than the vast majority of his contemporaries, and always acquitted himself with credit. A piquant contrast is afforded by the author's last two subjects: "Jacky" Fisher, who penniless and without influence yet rose to the greatest position open to a sailor by sheer force of character, courage and devotion to duty; and "Charlie" Beresford, born with a silver spoon in his mouth, the darling of Press and public, who had no superior as a leader and fighting man, and yet with all these advantages came short of the highest flight. Of all these five sailor heroes, proud, contentious, human, as they were, it may be said that they deserved well of their Service and their country, and are besides admirably fitted to point a moral and adorn Commander Dorling's delightful tale.

Open House in Flanders, 1914-1918, Château de la Motte au Bois.

By Baroness ERNEST DE LA GRANGE, C.B.E., Chevalier de la Légion d'Honneur. Translated from the unpublished French by MÉLANIE LIND. With an introduction by Field-Marshal the Viscount ALLENBY, G.C.B., G.C.M.G. London: John Murray, 1929. 15s. net.

"This book," as Lord Allenby writes in his introduction, "is a human document, a stirring record of the daily life, the work, the anxieties, hopes, and joys of a noble Daughter of France. It is, moreover, a faithful history of the war, compiled by one who was in a position to see and know, one who combines the faculty of exact observation and the art of vivid narrative with a lively sense of humour and a graceful literary style." Baroness de la Grange spent practically the whole of the war at her château near Hazebrouck, and throughout this period showed invariable kindness and unlimited hospitality to officers and men of the British Army. She displayed the greatest courage in the most difficult days of the War and her splendid optimism never failed her. She refused to leave her home when the Germans were driving all before them in 1914, holding that it was her duty to remain in her own village to look after the interests of the people, and it was only in 1918 when her chateau came under shell fire that she could be prevailed upon to leave it. Her notes of her experiences in the war are full of interest and will be pleasant reading for British soldiers. The Baroness loved to be known as the "Mother of the British Army," and no one appreciated more thoroughly than she did the magnificent work done by the British and Dominion troops in Flanders. It was a fitting tribute to this great French lady that as they rode at the head of the British troops through Paris on the 14th of July, 1919, Lord Haig and his staff gave her a special salute as she sat watching the march of triumph from the roof of the Automobile Club.

War Letters to a Wife: France and Flanders, 1915-1919. By ROWLAND FEILDING [Lieut.-Col. R. C. FEILDING, D.S.O., late Coldstream Guards, S.R., also late Commanding the 6th Connaught Rangers and 1st Civil Service Rifles]. With 16 illustrations from photographs. An introduction by Major-General Sir JOHN PONSONBY, K.C.B., C.M.G., D.S.O. London: The Medici Society. 15s. net.

These letters give a true and vivid description of the daily life of an infantry officer in the Great War. They are written with

perfect simplicity and they will be read with the deepest interest not only by personal friends and comrades of their author, but by all men and women who can appreciate a fine character and a great record of service. Lieut.-Colonel Feilding went to South Africa as a mining engineer in 1894 and served with Gifford's Horse in the Matebele Rebellion two years later. When war broke out in 1914 he was a captain in the City of London Yeomanry, but was transferred in April, 1915, as a captain to the Special Reserve of the Coldstream Guards, a regiment with which his family has always been closely connected. He was attached first to the 3rd and subsequently to the 1st Battalion and served with the regiment until, in 1916, he was given the command of the 6th Connaught Rangers. He subsequently commanded the 1st Civil Service Rifles (1/15th London Regiment). Lieut.-Colonel Feilding gives graphic descriptions of his experiences in the battles of Festubert and Loos in 1915, during the operations on the Somme in 1916, at Messines and Cambrai in 1917, and during the German offensive and the Allied advance to victory in 1918. His letters were written while the events described were fresh in his mind, either actually on the battlefield or in the trenches, and they tell very faithfully and with no kind of exaggeration what he saw and did. They give a vivid picture of the heroic courage of the British fighting men in the Great War, and, although the author says little about his own personal achievements, the reader can easily realize by reading these letters why it was that he proved himself such a fine commanding officer. His fault may have been, as Colonel Guy Baring expressed it, that he was "too brave," but he succeeded in gaining the confidence of all ranks under his command because, as Major-General Sir John Ponsonby states in his introduction, he never could bear giving orders to a subordinate officer to carry out any dangerous duty, and always applied to carry out the duty in question himself. But these letters are not only worth reading because of the side lights they give upon the conduct of actual battles as seen by a company and battalion commander; they should be read also because they afford a true picture of the daily life and the attitude of mind of the best type of British regimental officer during the Great War—men who, whether they belonged to the old Regular Army, or to the Territorial Force, or to the New Armies, made the best of things, however difficult the situation might be, and whose main care was to look after the interests of those who served under them.

From Day to Day, 1916-1921. By the Right Hon. Viscount SANDHURST, P.C., G.C.S.I., G.C.I.E., G.C.V.O. London : Edward Arnold & Co. 1919. 18s. net.

This is the second volume of the late Lord Sandhurst's diaries which give his daily impressions from the first day of the Great War onward to his death in 1921. Lord Sandhurst was a man with good judgment, sound common sense and broad human sympathy who did admirable service for his sovereign and his country in many capacities. He served for some years in the Coldstream Guards, was Lord-in-Waiting to Queen Victoria from 1880 to 1885, Under-Secretary of State for War in 1886 and again from 1892 to 1895, Governor of Bombay from 1895 to 1900 and Lord Chamberlain from 1912 to the time of his death. In addition to holding these various appointments, he was a member of the Commission sent to South Africa in 1906 to advise on the Constitution of the Transvaal and Orange River Colonies, and was deeply interested in the work of hospitals being for eight years Chairman of the Middlesex Hospital and subsequently Treasurer of St. Bartholomew's Hospital. His day to day impressions of the military, political and social occurrences of these six eventful years are of great interest and are written with a simplicity and a calm detachment of outlook which make them all the more valuable as an historical record. He was in touch with all the principal military and civilian leaders, and his observations upon them, without ever being unduly critical, are marked by a shrewd appreciation of their work and of the motives which inspired them.

Imperial War Museum. 12th Annual Report, 1928-1929. Price 9d.

That the Imperial War Museum is a success and that it is much appreciated by the public is clearly shown by this Report. Over one million people have visited the Museum since it was opened on Armistice Day, 1924. There are numerous additions to the exhibits and the library now contains upwards of 50,000 books. The Photographic Record Section is especially popular and the sales have greatly increased. Copies of the Report can be obtained from H.M. Stationery Office.

The Defence of Bowler Bridge : A Study in Minor Tactics. By H. E. GRAHAM. London : Wm. Clowes & Sons, Ltd. 3s. 6d. net.

This ingenious method of instruction in the principles of minor tactics was employed with considerable success in "The Defence of

Duffer's Drift," a product of the South African War. Since then it has been used by a writer in an American Military magazine, but he dealt with a force of all arms, and his lesson consequently lacked something in directness and simplicity.

Mr. Graham's study, which appeared serially in *The Army, Navy and Air Force Gazette*, may lack the Swinton touch, but it brings the armament up to date. The platoon commander is given an anti-tank gun, and his foes are tanks and armoured cars. Perhaps he makes a rather too ingenuous protagonist, judging by his first dispositions, which would do no credit to the intelligent recruit of these enlightened days. However, it was necessary that disaster should at first attend him, and we are carefully informed that this particular subaltern had but two years' service, most of it in a small garrison town, and had been "wet-nursed" ever since he could remember. He seems to have been very fortunate in obtaining sixty anti-tank mines and a contingent of four sappers to strengthen his defences before the last trial of strength from which, having learnt his lessons, he naturally emerges triumphant—before waking up.

India under Wellesley. By P. E. ROBERTS. London : G. Bell & Sons, Ltd. 15s. net.

The fact that when Lord Wellesley was Governor-General of India his younger and more famous brother was winning his spurs there as a military commander has tended to obscure the fame of one of the greatest of our administrators. It is sometimes remembered, too, that Wellesley resigned his office when expecting dismissal ; and severe criticism, which is sometimes altogether too censorious of him and of his work, is to be found in James Mill's "History of India." Mr. Roberts is, therefore, all the more to be congratulated upon this impartial study which is the result of careful and thorough research. It shows that Wellesley's vindication by the Court of Directors of the Company in 1836, over thirty years after he left India, was only an act of common justice.

It is in no sense a biography. In a few pages Mr. Roberts tells us all that it is necessary to know of the character and early life of this brilliant member of a very brilliant family. Then he outlines the problems which confronted Wellesley on his arrival in India, and proceeds to treat in succession the chief events of his term of office. First comes the conquest of Mysore, a swift success followed by a statesmanlike settlement. The Governor-General's chagrin

at receiving only an Irish marquissate as a reward is, perhaps, a trifle too much insisted upon. It certainly had no deleterious effect upon his further efforts to consolidate, develop, and extend the possessions of the East India Company at a time when our Government was confronted with the menace of Napoleon, and India seemed of small importance in the minds of most men.

The Treaty of Hyderabad admitted of practically no adverse criticism even at the time. The long-enduring scandal of the Nabob of Arcot's debts, a legacy left to Wellesley by his predecessors, was really a reproach to the Board of Control and to the British Government. As regards the Carnatic, Surat and Tanjore the Governor-General succeeded to three difficult situations, and if his methods of settlement did not, as is freely admitted, accord with academic principles of abstract justice they undoubtedly show his statesmanlike foresight and were justified by results.

The chapter entitled "The Coercion of Oudh" deals with matters which Mr. Roberts is prepared to concede are the most controversial of Wellesley's administration. "It is obvious," he says, "that the objects achieved were far better than the means employed to attain them." But treating of Wellesley's foreign policy he points out that "he never forgot that he was the holder of an outpost of empire at a time when that empire was fighting—often almost unaided—a world war with revolutionary France." It is doubtful if the Company's Court of Directors or the Government Board of Control thought of the Governor-General in this wise. At home India was considered a "side-show," as we should say nowadays.

In the matter of instituting the college at Fort William and in that of Indian trade and shipping it is clearly shown that Wellesley, unfortunately very impatient of control and unable to brook opposition, realized two of India's great necessities more quickly and more clearly than those in authority at home were able to do. And he was prepared with appropriate measures to carry these reforms into effect.

So we come to the Treaty of Bassein—there is a long chapter devoted to criticism and defence of this measure—and to the Maratha Wars. That the operations against Holkar were not entirely successful was no fault of the Governor-General, yet he was very sparing of reproaches where his subordinates were concerned and never hesitated to assume responsibility. In conclusion Mr. Roberts quotes very largely from the correspondence between the Court of Directors and the Board of Control, wherein the former

body's criticisms of Wellesley's actions and policy are stated at length.

There is a good index and the maps, although not many in number, are sufficient for the assiduous reader.

Times of Stress. By Colonel LIONEL JAMES, C.B.E., D.S.O.
London : John Murray. 12s. net.

Those who read and enjoyed "High Pressure"—the author has rather a flair for titles—will welcome this volume, which draws still further upon Colonel James's rich and varied experience of the days before the Great War—days when the enterprise and hardihood of a war correspondent found such great opportunity for expression.

Even in the early years of this century, however, there was one belligerent nation whose military authorities looked upon foreign journalists as unnecessary evils. It was certainly through no favour of the Japanese General Staff that *The Times* correspondent was able to send home such a long and graphic description of the Battle of Liau-yang.

Quite appropriately the author follows this account of his experiences in Manchuria with a chapter on the general relation of the Army and the Press in time of war. He quotes one of our Staff College students as saying that he was being taught "the way to muzzle you d—d fellows of the Press," if nothing else. This was uttered well over twenty years ago, but the criticism of the "military reticence" which characterized the opening stages of the Great War is well grounded. There is, undoubtedly, an excellent argument for the proper organization and utilization of the Press by the General Staff.

Here it is advocated that there should be a special branch of the General Staff in charge of the correspondents, its senior officer being responsible for keeping the G.O.C. in the field in touch with the general pulse of public feeling at home. We are assured that "every correspondent is far better disciplined by his Editor than he ever will be by any Army Regulations in the Field." This may be so, but much would depend upon the Newspaper Section of the General Staff having personal knowledge of newspaper proprietors and editors as Colonel James suggests they would. One may conjure up visions of a special course of Staff training carried out in Fleet Street and in the resorts of opulent Napoleons of the Press.

Next we are entertained by the recollection of many interesting episodes which are either little known or long forgotten by most

people. As seen by the special correspondent of *The Times*, the naval mutiny at Sevastopol at the end of 1905 was a tragedy with some of the elements of farce. In the relation of the Spanish troubles in the Riff four years later we are treated to some rather acid criticism of the Spanish forces and their commanders. During a premature excursion into the German Army manœuvre area of 1910 Colonel James discovered that the targets used for field firing bore figures painted khaki. He was also with the French in Morocco, and with the Italians in their Tripoli campaign.

By way of contrast there is the "Battle of Sidney Street," of which the author's most vivid recollection is that of being in the line of fire when a squad of "heavy-handed police constables" were armed with and given elementary instruction in the use of double-barrelled shot guns. And there is the narrative of a short experience in the East End of London as an "out of work." The articles which resulted found no favour with the editor of *The Times*, who did not consider it to be of interest to his readers.

Colonel James's last opportunity for the exercise of his talents as a war correspondent was provided by the Balkan War of 1912. He relates how he came to be in possession of a complete collection of Turkish Staff maps which could have been, and were not, utilized by the War Office in 1915. The narrative is brought to an end with the close of his journalistic career in 1913. A year later the Army claimed him again.

In these pages prominent personalities abound, among them King Nicholas of Montenegro, Enver Pasha, Lord Nicholson, General Swinton, and General Gouraud, "a remarkable soldier," to say nothing of many war correspondents whose names and work are well known. There are a few good stories, but not so many that the reviewer feels justified in plundering at will, and a number of interesting photographs are reproduced.

Enigmas : Another Book of Unexplained Facts. By Lieut.-Commander R. T. GOULD, R.N. (retd.). London : Philip Allan & Co., Ltd. 12s. 6d.

Those who remember the commander's collection of "Oddities" will know what to look for in his second volume. He has a great taste for a mystery which is a real mystery ; one which has not been solved and seems incapable of solution. Being a sailor he is, perhaps, at his best when writing of an "enigma" which has to do with the sea. One of the most interesting is certainly "The Landfall

of Columbus," read, as a paper, before the Royal Geographical Society nearly three years ago. Perhaps it will not have occurred to many readers that there is any doubt concerning the identity of the American soil upon which Columbus first set foot.

Then there is an examination of the narrative of Benjamin Morrell, described by one of his contemporaries as "the biggest liar in the Pacific," who claims to have discovered "New South Greenland"; and of the story of another worthy, one Maldonado, who as an explorer of the Arctic seas may or may not have been an impostor.

Commander Gould also discusses the question as to whether the famous "Old Parr" really reached the great age attributed to him, and does ample justice to the claims of the alchemists who professed to transmute the baser metals into gold.

But the whole point is that in every case—there are eleven in the book—the Commander has gone to immense trouble to present all the facts and leaves us to judge for ourselves, if we care to. When he inclines to a particular theory of explanation he does not lay down the law about it, and his sense of humour helps to make him pleasant reading.

There are many interesting illustrations—portraits, diagrams and charts—and an exhaustive index.

British Strategy : A Study of the application of the principles of war.

By Major-General Sir FREDERICK MAURICE, K.C.M.G., C.B., LL.D. London : Constable & Co. Price 10s. net.

The word "principle" implies an almost religious sanction, and when the "Principles of War" were stated in an official text book many soldiers may have thought that at last simple formulæ had been discovered for the solution of war's much complicated problems. In this admirable book General Maurice, who has the powerful support, in the introduction, of the Chief of the Imperial General Staff, dispels these false notions; for although he admits that the mind must be brought to a state in which principles applicable to events can be clearly seen, he points out that some of the principles given in the Field Service Regulations are, strictly speaking, not principles but methods, and that mere knowledge of the principles is not of any value. In fact, as Sir Joshua Reynolds put it, "Genius begins where rules end."

A large part of the range of war from its nature and its object to its principles or methods is illustrated with a wealth, perhaps too great a wealth, of those examples from history that are supposed

“to make everything clear and furnish the best description of proof. . . .” The chapter on mobility, as Field-Marshal Sir George Milne says in the introduction, is particularly instructive, as is the chapter dealing with protection, and there are most useful summaries at the end of the majority of the chapters. General Maurice also justly tells his readers that they must think “not in terms of naval, military and air-power, but in terms of the application of national power.” Still, one misses some such statement as was made not long ago by Admiral Richmond that, “external policy itself aims at the maintenance of our naval strength,” and, if this statement is true, its corollary that our national power must also be used in a great war primarily for this purpose. It is possible that the habit of studying too exclusively the actions of great commanders—and these must certainly be studied if war’s problems are to be correctly solved—has caused this fact to be overlooked; for it is not always evident even in the deeds of the great British leaders from Marlborough to Kitchener, who are mentioned in the introduction; and it can only be learnt from contemplation of national strategy as a whole.

A writer on military subjects must, of course, choose what he holds to be the best examples, but even admitting this one cannot help feeling that certain principles could have been illustrated from British rather than alien experience. For instance, do not Wellington’s actions in 1813 provide almost as good an exemplification of concentrating “an army holding the outer circumference of an arc against an enemy on the inner circumference,” as Napoleon’s campaign in 1796?

This book has at last explained, in language suitable alike for the young military student and for the leaders of the nation, the true nature of war. We live in times of change and General Maurice’s chapter on “Strategy” is a timely reminder that we must readjust our ideas; his remarks on the functions of the Royal Air Force and its capabilities are the soundest we have read. The book should be read and studied by every soldier and, we venture to think, by every sailor and airman who aspires to understand the purpose for which the Navy, Army and Air Force exist.

The Spine. By HUGH IMBER. Hodder and Stoughton, Ltd.
7s. 6d. net.

Every student of Imperial Defence must, at one time or at another, have considered the means by which an enemy might seek to destroy a portion of the Suez Canal.

"The Spine," as might be deduced from the name, is a tale of an attempt of this sort timed to coincide with the Chanak crisis. Apart from the title, however, it takes the reader some time to realize that the Canal is the subject of the story; in the beginning and for rather longer than is necessary there is every indication that the characters in the story are on the verge of discovering the master mind behind the murders of British officers and officials in and around Cairo.

We must confess that it is difficult to see how the destruction of a part of the Canal would have materially effected the British Empire vis-a-vis Mustapha Kemal in 1922. Moreover, we doubt whether the methods adopted by the plotters would have really escaped detection for very long. Nevertheless, the interest of the reader is held to the last. The author is obviously intimately acquainted with military life in Egypt and provides some excellent descriptions of the comforts and discomforts of soldiering in that country which should appeal to those who have served there.

There is, we fear, a serious reflection made on the military education of the General Officer Commanding, Canal Brigade. In enlarging on his thesis that "bridge embodies all the principles of war," he appears to think that there are only five principles—a grave error for a General Officer!

Aerial A.B.C. and Commercial Air Line Gazetteer. 4, Duke Street, Adelphi. 1s. Quarterly.

This is an enterprising publication in its sixth issue by means of which the prospective air traveller can map out and time a journey by almost any air route in the world. If he be an Englishman it will make sad reading, for it will bring home to him the lead held by foreign countries in the organization of civil air routes. We would suggest to the publishers that the work might be improved by stating the nationality of the aircraft operating on different routes. Many people are particular about this, and not without reason. A word of caution, too, as to the irregularity of some of the Russian air routes would not be misplaced; the Asiatic routes are considerably less regular than the A.B.C. might lead the traveller to believe.

Afghanistan. By Lieut.-General Sir G. MACMUNN, K.C.B., K.C.S.I., D.S.O. G. Bell & Sons, Ltd. Price 21s. net.

The publication of a book on Afghanistan is timely. Interesting and dramatic as the story is of the coming of ancient races into the

mountainous region between the Oxus and the Indus, the reader will be indebted to the author for the attention he draws to the connection geographically, politically and ethnologically, between Afghanistan and India. Apart from the value of the clear description of the geographical features and of the characteristics of the races into which the country is divided the main interest lies in the unfolding of British policy and the complications which the recent civil war has introduced. The principle of that policy has been, and is, the recognition of a stable government which will make the country an effective buffer against aggression from the north. Previous to Amanullah's senseless invasion of India in 1919 we had an agreement whereby, in return for the Amir's friendship, we gave him financial assistance and the promise of help in defending his country. By our treaty with Amanullah we gave up these obligations and recognized his complete independence. Sir George points out that although this is a reversal of much that we had long contended for, the principle of our policy remains the same. It is, nevertheless, somewhat remarkable that Sir George should state that "it is obvious that the necessity for protecting Afghanistan against aggression must always remain, not because of treaty or promise, but because of the hard facts of geographical position and the justice of the case." Is then the present form of application of the principle to be an advance into Afghanistan with or without its people's consent if the frontier is violated? The gravity of one factor in the problem has been accentuated by the recent chaos. Afghan rule has never been popular among the non-Afghan peoples north of the Hindukush and Paropamisus. They are kith and kin to those in the recently constituted Soviet Republics across the northern frontier. It is well known that Soviet aspirations lie in the direction of stirring them up to demand political affinity, and if necessary of intervening with armed force in their support. It has yet to be seen whether even the return of one of the Royal House of Barakzai to the throne and his acknowledgment by the British Government will produce settled government up to the Oxus frontier.

In his useful description of routes which are already, or could be rendered, practicable for motor transport, it is curious that Sir George should omit the route from Qunduz and Haibak over the Khawak Pass and thence south-west to Charikar, a route that has always been regarded as the most free of snow and the most easy to engineer.

In his later chapters the author shows the difficulties that lie before any government which has so little revenue on which to

depend. The mineral resources of the country are appreciable, but a system of communications is needed before they can be developed. In this connection Sir George favours a motor and not a railway system. While an iron rule for a hard people may still be necessary, yet future stability must depend on a policy which will avoid the mistakes which brought about the downfall of Amanullah. Methods of progress must be acceptable alike to Afghans, Ghilzais, Pathans, Hazaras, Kafirs and Tajiks.

The map, though excellent, does not appear to be of so recent an edition as the G.S. No. 2957 ; for instance, the important Indian frontier motor road through Razmak is omitted.

The World, the Air and the Future. By Commander Sir DENNIS BURNLEY, C.M.G., R.N. (Ret'd.). Alfred A. Knopf. London. 21s. net.

Although to this country belongs the credit of the first airship flight to America and back, a fact frequently forgotten, the history of British airship development to date has on the whole been a series of set-backs. Prior to 1916, British knowledge of airship construction was infinitesimal ; but in September of that year a German ship, the L. 33 (Commander Böcker), hit by anti-aircraft fire, landed in good condition at Wigborough and provided the basis for a really forward policy in airship construction. This ship was the model on which R. 33 and R. 34 were built and finished after the war, the former being the ship which made the double Atlantic crossing in 1919. Unfortunately in August 1921 there occurred the accident to the R. 38, a ship which we had sold to the American Government, during her trials in the vicinity of the Humber. Owing to structural weakness she broke into two pieces with a loss of 44 lives—British and American. As a result of this catastrophe the airship department of the Air Ministry closed down and all airships together with their ancillaries were handed over to the Disposals Board for sale.

Early in 1922, and before effect had been given to the ruling, Commander Burnley approached the Government (during the protracted negotiations a Conservative was succeeded by a Labour Government) on behalf of a syndicate, mainly consisting of Vickers Ltd. and the Shell Oil Group, with plans for the running of an airship service to India and back. His proposals led to an entirely new airship policy. In the issue it was decided to build two new ships larger than anything previously attempted ; one (R. 101) to be built by the State at Cardington, the other (R. 100) to be built by the

Airship Guarantee Company, as Commander Burney's syndicate was called, at Howden. The approximate cost of each ship was to have been in the vicinity of £500,000, but, if all the ramifications of the scheme be included, such as masts and a shed abroad, the total cost is nearer two million sterling. Though differing in technical detail, as two simultaneous experiments should do, the two ships are not on the whole dissimilar. The R. 101 is longer than R. 100, but the displacement of the latter is the greater. The principal difference to the layman is that the R. 101 is fitted with heavy fuel oil engines and the R. 100 with petrol engines. It is the fact that she is fitted with heavy fuel oil engines, necessarily heavier in the present stage of their development, which renders the R. 101 incapable of carrying the same load as its sister ship.

The foregoing is a summary, necessarily incomplete, of the history of events leading up to the two airships now, literally, in the public eye. R. 101 has completed part of her trials; R. 100 awaits the use of the mast at Cardington to commence hers.

This is the moment which Sir Dennis Burney has chosen to inform us that the two ships, for whose conception he is so largely responsible, are a commercial failure and cannot, except as an experiment, justify the money which has been expended upon them. This, apart from his views on Imperial Defence, the economic entity of the Empire and the prospects of world peace, appears to be the object of the work under review. Apart from the soundness of the author's view, which we will examine shortly, we doubt if the time selected for publication was opportune.

The arguments produced by the author to prove his main thesis read convincingly. He argues that, in view of the weather it may encounter, an airship designed for long-distance commercial flights must have a cruising speed of 90 m.p.h., that is to say some 20 m.p.h. more than the speed of the two new ships. Speed is the airship's resource in bad weather as the first Trans-Atlantic flight of the Graf Zeppelin very nearly proved by the lack of it. Modified to reach this speed on a commercial flight, to Egypt for example, the R. 100 could carry a useful load of only 10 tons while the R. 101, with her heavier engines, could carry no useful load at all. What is required, Sir Dennis Burney tells us, are larger ships, but here again another difficulty arises. A larger ship would not be a commercial proposition because it could not be manhandled with safety on the ground and in any event, only at vast expense. He proves conclusively that the mooring mast in its present form is not the answer to the problem.

"Summing up," he writes, "we may say that, for commercial utility, the size of airships must be increased to a point that will render them incapable of being handled by man-power, and that consequently our methods of handling them must be much improved before they can become commercially successful. It is better to face this fact now than later."

Thus the newly completed policy of Empire mooring-masts—there are masts in Egypt, India and Canada—is out of date before it has been tried. The author claims to have known this for some time, and tells us that from the beginning he asked for mobile masts to be built on monitors. We find difficulty, however, in accepting the motives which he attributes to the government for denying his request (Page 257); moreover it is difficult also to reconcile the views he now puts forward with his enthusiastic speeches and articles of recent years. Sir Dennis Burney believes the commercial solution of docking airships to be in designing them to alight on water, where they would be handled as ordinary vessels. His proposals would appear to have much to commend them, but we would have welcomed his views on how tidal difficulties in relation to wind are to be overcome.

No small part of the work under review is devoted to Empire development; on this subject and particularly on the economic entity of the Empire we welcome the author's views, which are far-sighted, sound and refreshingly presented. We cannot say the same, however, for his views on Imperial Defence. In his examination of existing facts relating to defence we agree with much which Sir Dennis Burney has to say; for example there is little doubt that to-day "we need the Dominions very much more than they need us, and their dependence on British power and prestige is rapidly ceasing to be one of the links that bind the Empire together." But when he enquires into the existing defence system we think the author has been a little heedless in expressing his views. We doubt if naval opinion would accept the role which he assigns to airships in replacing cruisers; moreover he overlooks the vulnerability of airships both to gun-fire and hostile aircraft. This is a war aspect of airships which should not be forgotten; it was repeatedly proved in the war, but is not mentioned in the book.

Finally we are informed (Page 335), that "the Navy no longer holds its pre-war position in regard to the functions entrusted to it, and must be prepared to submit to a still further curtailment of its specific duties and responsibilities as the years go on. Consequently the Admiralty must face the logic of the situation, and realise that

the Navy cannot rightly retain its old position in regard to moneys voted, unless the Air Force and the Navy are merged into one Service."

On the arguments presented by Sir Dennis Burney we do not accept the proposition that the Air Force should be merged in the Navy, nor do we accept the further proposition (Page 333) arising therefrom, that the Army should indent upon the Navy for its flying equipment and training. We feel that the author has not studied this matter of defence as closely as the subject merits. We are led to this view particularly when he tells us (Page 332) that, "due entirely to House of Commons pressure since the war, an Imperial Defence Committee has been inaugurated" !

Air Defence. By Major-General E. B. ASHMORE. London : Longmans, Green & Co., Ltd. 8s. 6d. net.

On the subject of the air defence of London there is probably no greater authority in this country than Major-General Ashmore. From 1917 to the end of the War he organized and commanded the defences of London ; since the War he has played a prominent part in the formation and re-organization of the ground portion of what is now known as the Air Defences of Great Britain.

The German air attacks on England fall easily under three headings : airship attacks, daylight aeroplane raids and night aeroplane raids. Speaking broadly, they were launched in the above order, though spasmodic airship attacks continued almost up to the end of the War.

Owing to the loss of most of their available ships over the Western and Eastern fronts in an endeavour to cooperate with their armies, the Germans were unable to commence airship attacks on England until January, 1915. But from that month onwards attacks were attempted by military and naval vessels whenever the weather conditions permitted ; between the two services, naval and military, there was an unhealthy rivalry which reacted seriously on operations as a whole. It was not, however, until the 31st of May, 1915, that London was first bombed, by a military airship LZ. 38 under the command of a Captain Linnarz. The German authorities had had considerable trouble in persuading the Kaiser to agree to attacks on London ; at first he gave only a conditional assent, namely that bombing should be attempted at week-ends, when the City, he thought, would be empty. Circumstances, however, were too strong for him, and he was eventually obliged to assent unconditionally.

The Zeppelin attacks continued with almost complete immunity to the attackers up to the end of 1915. The defences may be described as negligible. The majority of the A.A. guns were inadequate and obsolete ; the defending aircraft were few and improperly armed. The Admiralty and War Office were engaged in a prolonged controversy, each urging its claim to be rid of responsibility. The anxiety of these departments to shed responsibility in this matter was only exceeded by their previous efforts to obtain it prior to the outbreak of war. In the issue, however, the War Office were defeated, and took over complete responsibility for air defence on the 16th of February, 1916. With the disappearance of divided control the defence organization improved rapidly. The work of the guns, searchlights and aircraft was co-ordinated ; new guns were installed, more aircraft were provided, properly armed with explosive ammunition instead of darts and bombs ; in addition, a beginning was made in arranging a system of warning of the approach of raiders. It was not, however, until after General Ashmore took over the defences that the real value of this system of intelligence was appreciated and perfected. It is in fact the secret of any system of passive air defence.

The work of the War Office now began to show profit. On the 31st of March, L. 15 was shot down by A.A. fire and fell in the sea. On the 2nd of September, S.L. 11 was shot down at Cuffley by Lieut. Robinson. Two more followed on the 23rd of September, while on the 1st of October the gallant Mathy was shot down in flames at Potters Bar. In all, the defences accounted for eight airships. By the end of 1916 the era of airship attacks on England may be said to have been concluded. There were more airship attacks, but there were many more victims in proportion ; none of the subsequent attacks was pushed home.

The defeat of the airship introduced the period of daylight aeroplane raids. Occasional aeroplane attacks had been made on coast towns from time to time from the beginning of the War, but they were negligible in numbers and in results. One aeroplane appeared over London in November, 1916, bombing at leisure. In June, 1917, however, a series of daylight attacks commenced which involved heavy casualties and, incidentally, a political crisis. In the first of these raids 594 people were killed and wounded. Fighting squadrons were hastily withdrawn from France, in spite of the protests of Sir Douglas Haig ; General Ashmore was recalled from France to organize the defences ; General Smut's Committee was set up to consider the formation of a separate air service.

Meantime the attacks continued, but with diminishing success. By the 22nd of August the German Commander reported that the "increased strength and better organization of the defences had now made it inadvisable to attack unless with machines that could fly loaded over 10,000 feet, or under cover of darkness." In all, five German aircraft were shot down during this period of concentrated daylight attack. It must be admitted that the Germans were readily discouraged.

The night aeroplane raids commenced in September, 1917. To meet them it was necessary for General Ashmore to redistribute his forces. An adequate intelligence system and close cooperation between aircraft and searchlights became essential. Moreover, no reasonable grounds for successful defence could be anticipated until it was proved that single-seater fighters could be flown by night. By the end of September, however, considerable progress had been made; single-seater fighters were being flown by night and a workable system of barrage fire had been devised. But it was not until the beginning of 1918 that the defences could be described as capable of coping effectively with the night attacks; many such had been foiled in their attempts to reach London, but the enemy had escaped without loss. More was required; by the new year the defence was inflicting loss upon the enemy. On the 19th of May the last attack, by thirty-three aircraft, was attempted against London. The Germans lost nine machines; our casualties were 226 killed and wounded.

Though no further attacks took place the defences continued to improve in efficiency. Aircraft were equipped with wireless telephony, and by September General Ashmore's new system of control, known as the Lada, was in operation. This system is the basis of the present organization for the air defence of Great Britain. It is fully described in Chapter VIII of the work under review.

A short section (commencing page 97) is devoted to air defence on the army front in France. This heading, however, is misleading; the author means and describes night defence in France only, a very different proposition to air defence on the front in France as a whole.

It will come as a surprise to many readers to learn that the French defences of Paris were considerably behind those of London in efficiency; so much so that in April, 1918, General Ashmore was sent to Paris to inspect and to advise on the defences, a delicate task. The principal fault of the French lay in the fact that they relied primarily on guns. "The French authorities admittedly looked to

the flying part of the defences rather for its moral effect on the public mind than for any hope of actual results on the enemy ; and this view was shared by the flying service itself." In these circumstances it is not a matter for wonder that the French were compelled to invite foreign advice.

The two concluding chapters deal with the existing air defences of Great Britain and with their future. General Ashmore is dissatisfied with the existing arrangement by which the War Office provide the *personnel* and material for the ground portion of the defences. As the cost is borne on the War Office vote he believes that the ground defences suffer at the expense of purely War Office responsibilities, such as the provision of the Expeditionary Force. Though the Air Ministry have operational control, he defines the system as divided control, and, admittedly, out of divided control good has seldom, if ever, come. He thinks that as tactically the ground troops have little in common with the army at large and cooperate only with the Royal Air Force, the whole ground organization should be handed over to the Air Ministry for administration and finance. This proposal is new to us and is one on which we do not propose to express an opinion.

We must, however, disagree with the author in his final chapter where he urges that more of the squadrons of the Air Defences of Great Britain should be fighting and not bombing ; the present authorized proportion is thirty-four bombing squadrons to eighteen fighting squadrons, the latter being considered the effective minimum with which the passive defence of London can be undertaken. The author argues that if the money is put primarily into fighting aircraft and ground defences, a stage of efficiency will be reached which will prevent any enemy aircraft reaching London. With this we do not agree.* It is well known from the experience of the War that no number of defending aircraft will prevent all the aircraft of a determined enemy from reaching their objective ; in the last year of the War the German attacks on London were not determined.

A football team which concentrates solely on defending its own goal may not lose the match, but it can certainly never win it. In the future air attack on England will be part of the general plan of an enemy to defeat the British Empire ; quite possibly a major part of his plan in certain circumstances. By concentrating all British air resources to frustrating this attack it is possible that the enemy may be unable to defeat the British Empire, but it is certain, on the other hand, that by these methods the Empire will not defeat him.

* See also *The Army Quarterly*, January, 1924, p. 442.

In the air, as on land and sea, offence is the only true defence, and is the only means by which the enemy's will to war can be broken.

We commend General Ashmore's book to every student of Imperial Defence. It deals with a side of war which is overlooked by many who were employed elsewhere in the last war, but it is a feature of Imperial Defence which is likely to be of considerable importance in the future.

The White Mutiny. By Sir A. CARDEW. Constable. 12s. 6d.

Sir Alexander Cardew has done well to rescue from oblivion this forgotten episode in the history of the Indian Army, the story of which he tells with admirable vividness, wealth of detail and precision. In 1809 discontent was rife in the officers' corps of the Madras Army. The recent influx of a number of young men, whom an acute observer characterized as "mad-headed boys" with an overweening sense of their own importance and dignity and deficient ideas of discipline, created a dangerous situation, which injudicious action on the part of the Commander-in-Chief, Hay Macdowall, and certain senior officers, and equally tactless handling on the part of the newly-appointed Governor, Sir George Barlow, rapidly brought to a head. As a result the whole corps, as it were, went on strike; definitely mutinous outbreaks took place at Masulipadam, Secunderabad, Jaulna and Seringapatam, and in the last-named locality the King's and Company's troops came to blows, the latter suffering serious casualties. The Government then presented the rebels with the alternative of signing an undertaking of obedience or undergoing suspension; but the undertaking was couched in such terms that the bulk of them refused it, and nine-tenths of the whole corps were accordingly removed from their units and replaced by King's officers. The movement, its powers of danger thus crippled, eventually died out; the Viceroy, Lord Minto, wisely granted an almost complete amnesty to the offenders, and few, if any, evil after-effects remained.

The author, who has added to his narrative a very complete series of documentary appendices, has successfully cleared the Governor, Sir George Barlow, on whom hitherto the whole blame for the episode had been placed, from any charge more serious than that of lack of judgment in handling a difficult and dangerous crisis, for the arising of which he was in no way responsible; he lays the real blame on "the inherent weakness of a system which

laid the fortune of India at the mercy of the votes of a shifting body of merchants in Leadenhall Street"—a lesson which was unhappily only learnt after the lapse of fifty years and at the cost of a far more serious and disastrous mutiny.

My Seventy-Five (Meuse, Marne, Aisne, 1914). By PAUL LINTIER. (Soldiers' Tales Series.) Peter Davies. 7s. 6d.

This diary, compiled by a French gunner, was first published in English in 1917, when it passed unnoticed amid the flood of ephemeral war literature. This was regrettable, for it furnished a memorable description of those breathless first days of defeat, recovery and stalemate which preluded and conditioned the ensuing wearisome three years of trench warfare in the west. Messrs. Peter Davies have done well to reissue it in a new and unexpurgated translation. Lintier's battery, which belonged to Boelle's IVth Corps in Ruffey's Third Army, had its baptism of fire in the disastrous defeat of Ette, and thereafter took part in the retreat from the Meuse. Subsequently it was switched over to form part of Maunoury's new Sixth Army north of Paris, fought on the left of the line at the Ourcq, and on the Aisne, where the pursuit was finally brought to a stand. Later it was again withdrawn and sent westwards to the Lassigny area, and here a severe wound put an end to Lintier's connection with the battery and to his diary.

The book, despite, or perhaps because of, the limited horizon of its author, gives what one from the first feels to be as true as it is a vivid and artistic picture of the first two months of the war as seen by a humble individual of a mighty army. The preoccupation with the needs and impressions of the moment; the unexpectedness of defeat and retreat and the speculation as to their causes; the misery, pride and happiness of the hand-to-mouth existence of the soldier; the freshness of beauty, whether of woman or the countryside, so poignantly felt because so soon perhaps to be lost; the incredibility of victory when, so long expected and despaired of, it was at last achieved; the high hopes of its fruits, so soon to prove Dead Sea apples; the glory of comradeship with equals and loyalty to superiors—nowhere better than in these pages can they be found expressed. It is a book no lover of good writing and of truth can afford to pass by.

War Diaries and Other Papers. By Major-General HOFFMANN.
2 vols. London : Martin Secker. 42s. net.

The complete works of Major-General Hoffmann have now been translated into English and they present considerable interest to military readers. They comprise the "War Diaries," "Tannenberg," "The War of Lost Opportunities" and several pamphlets on Bolshevism.

"The War of Lost Opportunities" and "Tannenberg" were reviewed in the *Army Quarterly* in 1924 and 1927 on their first appearance in Germany, therefore little need be added to what was mentioned at the time.

Military readers should remember that General Hoffmann from first to last served on the Eastern Front, against Russia, being G.S.O.I. under Waldersee, Pritwitz's Chief of Staff, Hindenburg's predecessor. Under Ludendorff he served in the same capacity, and on the latter's transference to Imperial Headquarters became Chief Staff East. His knowledge of the Russian Army methods and language was most useful to him in the Great War, and at the Brest Litofsk negotiations with the Bolsheviks.

"We had a hard task before us, harder almost than any history. However, I am content, for I confidently hope that we shall be able to deal with it," he wrote in his diary on the 7th of August, 1914. Six days later he records that "our first idea, at any rate, comes from me. I am in complete agreement with Q.M.G. General Grunert; he and I hold together and until now we have forced our stronger will on the chief. Walderon is rather weak." A week later the Germans were forced to retreat before *Rennenkampf*, Pritwitz deciding to retreat to the Vistula under threat of *Samsonoff's* Army coming from the *Nareff*. Later, regaining control over himself, Pritwitz decides to meet the enemy, orders being issued accordingly. Hoffmann believed victory would have been gained even if Pritwitz had remained at the helm, though Ludendorff evinced greater driving power. "It is true," he writes in his diary on the 4th of September, "that we had an ally that I can talk about after it is all over—we knew all the enemy's plans." Hoffmann makes no secret in "Tannenberg" that the picking up of two unciphered Russian wireless messages greatly helped the German High Command in gaining a victory. The Russians, as we know only too well, marched straight into the enemy's trap.

Hoffmann throughout his works had little praise for the Austrians

and sarcastically remarked: "They have saved their Army for twenty years and they are now paying for it." Writing in 1917 at the time of the Kerensky régime he speaks of the Russians attacking furiously, "which is rather more than I like," and though he states that he was well prepared and calm, yet one can easily read between the lines.

No mention is made of the Western offensive in March, 1918, and as late as the 19th of August of that year he states his belief that the German position was secure. But by the 13th of September he is forced to own that on the Western Front "it is now merely a question of defence." Five days later he confesses that there is nothing to be done on the Eastern Front and that all efforts should be devoted to sending help to the West. Gradually a different tone is noticeable, which culminates with a frank avowal that though Ludendorff was undoubtedly responsible for the collapse, it would be impossible to replace him (27th of October). There is a blank in the diary between the 29th of October and the 11th of November, which looks very much as if the author intentionally did not put down his thoughts on paper when the German defeat was becoming more and more certain.

ARTICLES IN REVIEWS

The Edinburgh Review, July, 1929. "Alexander the Great and the Indian Frontier," by R. G. Burton.

A review of Sir Aurel Stein's book "On Alexander's Track to the Indus."

The Nineteenth Century and After, July, 1929. "The Gallipoli Tragedy: Part I," by Orlo Williams.

A review of the *Official History*, Vol. I, based on the author's own war diary.

The Quarterly Review, July, 1929. "Strategy and the American War," by B. H. Liddell-Hart.

This article is an inquiry into the light which the American Civil War sheds upon certain problems of modern warfare.

The National Review, August, 1929. "John Nicholson—A Superman," by the Rt. Hon. Sir John Ross, Bt.

The Nineteenth Century and After, September, 1929. "Wolfe and Quebec," by Lieut.-Colonel F. E. Whitton, C.M.G.

The Edinburgh Review, October, 1929.

(1) "Falkenhayn in Syria," by Captain Cyril Falls.

(2) "British Civil Aviation," by Lieut.-Colonel N. G. Thwaites, C.B.E.

The Contemporary Review, December, 1929. "The End of the Rhine Army," by Peter Deane.

The English Review, December, 1929. "The New British Doctrine of Mechanized War," by B. H. Liddell-Hart.

The National Review, December, 1929. "Success in War: Technique and the Master," by A Rifleman.

The author's theme is that "success in war is neither the product of super-scientific weapons, superior resources, nor of superior leadership, but the produce of all three combined."

LIST OF BOOKS RECEIVED

"Strange Tales of the Seven Seas." By J. G. Lockhart. Published by Philip Allan & Co., Ltd. 8s. 6d. net.

"The Life of Napoleon." By Dmitri Merezhkovsky. Published by J. M. Dent & Sons, Ltd. 7s. 6d. net.

"Enigmas." Another book of unexplained facts. By Lieut.-Commander Rupert T. Gould, R.N. (Retired). Published by Philip Allan & Co., Ltd. 12s. 6d. net.

"Afghanistan. From Darius to Amanullah." By Lieut.-General Sir George Macmunn, K.C.B., K.C.S.I., D.S.O. Published by G. Bell & Sons, Ltd. 21s. net.

"From Day to Day, 1916-1921." By the Right Hon. Viscount Sandhurst, P.C., G.C.S.I., G.C.I.E., G.C.V.O. Published by Edward Arnold & Co. 18s. net.

"War Letters to a Wife: France and Flanders, 1915-1919." By Rowland Feilding (Lieut.-Colonel R. C. Feilding, D.S.O., late Coldstream Guards, S.R., also late Commanding the 6th Connaught Rangers and 1st Civil Service Rifles). Published by The Medici Society, Ltd. 15s. net.

"War Diaries and Other Papers." By Major-General Max Hoffmann. Published by Martin Secker. 2 Vols. 42s. net.

"Open House in Flanders, 1914-1918." By Baroness Ernest de la Grange, C.B.E., Chevalier de la Légion d'Honneur. Translated from the unpublished French by Mélanie Lind. Published by John Murray. 15s. net.

"The Generalship of Ulysses S. Grant." By Colonel J. F. C. Fuller, C.B.E., D.S.O. Published by John Murray. 21s. net.

"The Annals of the King's Royal Rifle Corps." By Major-General Sir Steuart Hare, K.C.M.G., C.B. Vol. IV., The 60th: The K.R.R.C. With Illustrations and Maps. Published by John Murray. 25s. net.

"The Army." By Lieut.-General Sir George MacMunn, K.C.B., K.C.S.I., D.S.O., etc. Published by Geoffrey Blas. 5s. net (Life and Work Series).

"Marlborough and His Campaigns, 1702-1709." With the battles described in conjunction with Field Service Regulations, Vol. II., by the kind permission of the Controller of H.M. Stationery Office. By A. Kearsey, D.S.O., O.B.E., p.s.c. Published by Gale & Polden. 3s. net.

"A History of The Provost Marshal and The Provost Services." By Captain H. Bullock, F.R. Hist. S., I.A. Published by Milne & Hutchison, Aberdeen. 2s. 6d. net.

"Siberian Garrison." By Rodian Markovits. Translated from the Hungarian. Published by Peter Davies, Ltd. 8s. 6d. net.

"The Memoirs of General Wrangel. The last Commander-in-Chief of the Russian National Army." Translated by Sophie Goulston, B.A. Published by Williams & Norgate, Ltd. 21s. net.

"Reminders for Company Secretaries." By Herbert W. Jordan (Company Registration Agent). 15th Edition. Published by Jordan & Sons, Ltd. 2s. 6d. net.

"All the World's Aircraft, 1929." Compiled and Edited by C. G. Grey (Editor of "The Aeroplane") and Leonard Bridgman and L. Howard Flanders. Published by Sampson Low, Marston & Co., Ltd. £2 2s. net.

"Aerial A.B.C. No. 6 and Commercial Air Line Gazetteer." Published by the Aerial A.B.C. Ltd. London. 1s. Quarterly.

"Air Defence." By Major-General E. B. Ashmore. Published by Longmans, Green & Co., Ltd. 8s. 6d. net.

"The Great Earl of Peterborough." By Brigadier-General Colin Ballard, C.B., C.M.G. With 16 Illustrations and 8 Sketch Maps. Published by Skeffington & Son, Ltd. 21s. net.

"Mad Anthony Wayne." By Thomas Boyd. Published by Charles Scribner's Sons. 12s. 6d. net.

"India under Wellesley." By P. E. Roberts. Published by G. Bell & Sons, Ltd. 15s. net.

"Four Months' Camping in the Himalayas." By Dr. W. G. N. Van Der Sleen. Translated by M. W. Hoper. Published by Philip Allan & Co., Ltd. 21s. net.

"Times of Stress." By Colonel Lionel James, C.B.E., D.S.O. Published by John Murray. 12s. net.

"British Strategy: A Study of the Application of the Principles of War." By Major-General Sir Frederick Maurice, K.C.M.G., C.B., LL.D. Published by Constable & Co., Ltd. 10s. net.

The Nautilus Library, Vols. 9-12. Published by Philip Allan & Co., Ltd. 3s. 6d. each net.

Vol. 9, "Smuggling Days and Smuggling Ways." By H. N. Shore.

Vol. 10, "Sea Escapes and Adventures. By "Taffrail."

Vol. 11, "The Buccaneers." By A. H. Cooper-Prichard.

Vol. 12, "The Loss of the *Titanic*." By Lawrence Beesley.

"The Spine." By Hugh Imber. Published by Hodder & Stoughton, Ltd. 7s. 6d. net.

"Men o' War." By Captain Taprell Dorling, D.S.O., R.N. ("Taffrail"). With a Foreword by Admiral Sir Reginald Custance, G.C.B., K.C.M.G., C.V.O., D.C.L. Published by Philip Allan & Co., Ltd. 15s. net.

"Essex Units in the War, 1914-1919." Vol. 4: "The Essex Militia (including, 3rd Bn. The Essex Regiment)." By John Wm. Burrows, F.S.A. Published by John H. Burrows & Sons, Ltd., Southend-on-Sea. 5s. net.

"Big Game Hunting and Collecting in East Africa, 1903-1926." By Kálám Kittenberger. With 200 Illustrations. Published by Edward Arnold & Co., 25s. net.

"The Weary Road." By Charles Douie. Published by John Murray. 6s. net.

BERTRAND STEWART PRIZE ESSAY, 1930

Subject selected by the Army Council for the eighth Competition :

- “It is accepted that the existence of the British Empire in war is dependent on the control of sea communications. The security of the ports constituting the terminal points of these communications is, therefore, of vital importance. These ports, which may be either naval or commercial, may be subjected to attacks by sea, air or land, either singly or combined. Consequently, the defence of ports has a three-fold aspect.
- “Discuss this three-fold aspect, and describe what you consider should be the rôle of each of the three fighting Services in the defence of ports. State, also, your views on how the defence should be controlled and coordinated.”

RULES OF THE COMPETITION

1. The right to compete is limited to British subjects, who have served, or who are actually serving, as officers or in other ranks or ratings of His Majesty's forces.
2. The term “His Majesty's forces” includes the Navy and the Royal Marines, the Regular Army, the Special Reserve, the Territorial Army, the Militia, and the Royal Air Force, the New Armies which took part in the late war, and also the Naval, Military and Air forces of India, the Dominions and the Crown Colonies.
3. The essays submitted for the prize must not exceed 10,000 words in length; they must be typewritten and submitted in quadruplicate.
4. The authorship of the essays must be strictly anonymous. Each competitor must adopt a motto and enclose with his essay a sealed envelope with his motto typewritten on the outside and his name and address inside.
5. The title and page of any published or unpublished work, to which reference is made in any essay or from which extracts are taken, must be quoted.
6. The essays, which are to be addressed to the Editors of the *Army Quarterly*, must reach the office of the *Army Quarterly*, 94, Jermyn Street, London, S.W., not later than the 1st of March, 1930.
7. The essays will be judged by at least three referees—two to be appointed by the Army Council, the third to be one of the

Editors of the *Army Quarterly*. The decision of the Referees, or of a majority of them, will be final.

8. The referees are fully empowered, if in their opinion, or in the opinion of the majority of them, no essay submitted to them comes up to a sufficiently high standard of excellence, not to award the prize ; or they may, if they consider such a course desirable, divide the prize among two or more competitors.

9. The result of the Competition will be made known in the *Army Quarterly* in July, 1930, and the prize essay will be published in that number of the Review. In the event, however, of there being two or more prize essays, the Editors of the *Army Quarterly* reserve to themselves the right of deciding which of these essays they will publish.

10. The copyright in any essay which appears in the *Army Quarterly* belongs to the Proprietors of the Review.

11. Neither the Proprietors nor the Editors of the *Army Quarterly* are to be held responsible for the loss or return of any essay submitted for the Competition ; nor do they incur any liability whatsoever in connection with the receipt of the essays, any dealings therewith, the judging thereof, or the reports thereon.



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